

June 1986

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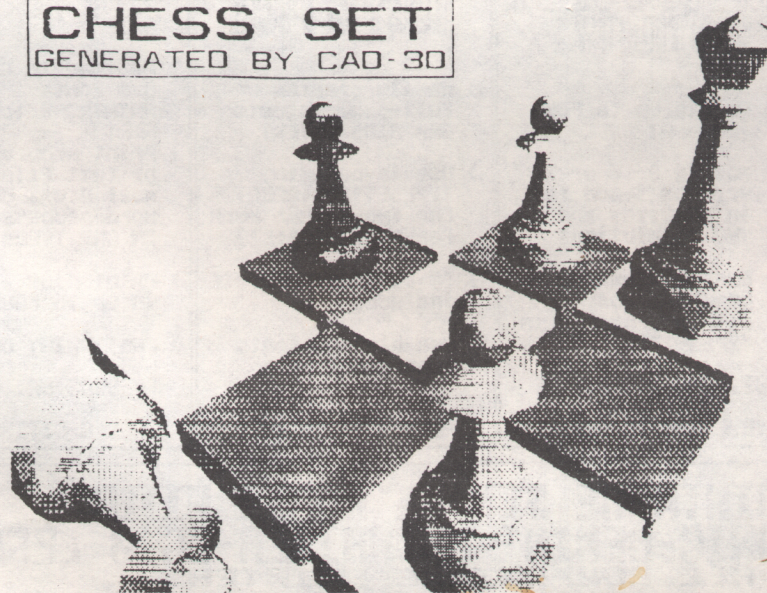
CURRENT NOTES

The Newsletter For ATARI Owners

WAACE



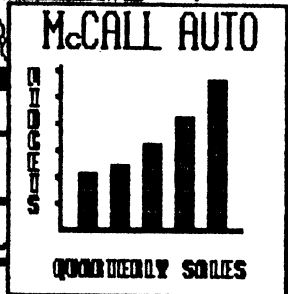
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CURRENT NOTES (ISSN 8750-1937) is published monthly (excluding January and August) by the Washington Area Atari Computer Enthusiasts (WAACE), 122 N. Johnson Road, Sterling, VA 22170-9998. WAACE is a federation of Atari User Groups which provide CURRENT NOTES as part of membership in the club. Direct subscriptions to CURRENT NOTES are available for \$15/year (\$23/year foreign). Send check, payable to CURRENT NOTES, to the editor -- address below. Second-Class Postage paid at Sterling, VA.

POSTMASTER: Send address changes to Editor, CURRENT NOTES, 122 N. Johnson Rd., Sterling, VA 22170.

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MANAGING EDITOR: Joe Waters (703) 450-4761
 ST EDITOR: Frank Sommers (301) 656-0719
 XL/XE EDITOR: Jack Holtzhauer (703) 670-6475
 MARKETING: Ed Seward (703) 960-6360
 WAACE MEMBERSHIP LIST: Earl Lilley (703) 281-9017
 COLUMNISTS: M. Evan Brooks, Mark Brown, Barry Burke, Roland Gabeler, Jack Holtzhauer, Bob Kelly, George Langworthy, Frank Sommers, Jim Stevenson, Joe Waters, Susan Wolff

Opinions expressed in this publication are those of the individual authors and do not necessarily represent or reflect the opinions of any of the user groups none of which are affiliated in any way with Atari Corp.

EXCHANGE SUBSCRIPTIONS are available for other Atari User Groups. Send exchange newsletters to Jack Holtzhauer, 15017 Vista Drive, Dumfries, VA 22026. Material in this newsletter may be reprinted by other Atari user groups provided CURRENT NOTES and the author are cited.

ADVERTISING RATES: single insertion: quarter page, \$30; half page, \$55; full page, \$100. Half year rates (5 issues): quarter page, \$120; half page, \$220; full page, \$400. Submit photo ready copy to editor by the 15th of the preceding month. Circulation in May: 2,700 (Members 1310, Store sales 1090, Exchange 110, Other 150).

BACK ISSUES: A limited number of back issues are available: 1984 (\$1/copy): FEB, MAR/APR, JUN, OCT; 1985 (\$1.50/copy): MAY, JUN, SEP, OCT, NOV, DEC; 1986 (\$2/copy) FEB, MAR, APR, MAY.

The EDITOR of CURRENT NOTES is Joe Waters, 122 N. Johnson Rd., Sterling, VA 22170 (703) 450-4761. Submissions of articles or advertising copy, subscription requests or back-issue orders should be sent to the editor. Deadline date for articles and advertisements is the 12th day of the preceding month.

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EDITORIAL

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by Joe Waters

I always leave the editorial until the very end when I am putting together the newsletter. Well, here I am at the end once more and anxious to -- finally -- put another issue to bed (and put myself to bed!) so I will keep this short, just a few comments.

Notice that the cover price has increased slightly. My printer purchased a computer and discovered he wasn't charging me enough; so has raised his rates. This makes CURRENT NOTES a little more expensive on the newsstand, but it also makes subscribing look a little more attractive (subscription rates remain steady at \$15/year).

Subscriptions, as well as memberships in several of the clubs, are on an annual basis. If your subscription/membership is not renewed, you are dropped from our mailing list. Since we can't afford to mail out individual notices, we are using the first line of your mailing label as a reminder. Your expiration date is indicated by YMM, i.e. 8606 means that month 6 (June) in 1986 is the last month of your subscription or membership. If this is your last issue, we add the warning "Last Issue" to your mailing label. If you are within one month of the last issue, we print "Renew Now". If you are within two months, we print "Renew Soon." That's it for reminders. Be sure to watch your mailing label so you don't miss out on any issues..

CURRENT NOTES is mailed out under second-class postage rates. This means that the issue is NOT FORWARDED to you if you move. Instead, the post office rips off the cover with your mailing label (throwing the rest of the issue away) and puts your new address on that and sends it back to CURRENT NOTES (charging us \$.30 in the process). Therefore, if you are moving be sure to notify CURRENT NOTES (or your club membership chairman who will get the info to us) of your NEW ADDRESS. Note that any issues which must be sent out during the month can not go at the 2nd class rates but must be mailed first class at a cost over \$1.00/copy.

Have you ever wondered about the people who write the articles, reviews, and columns you read in this newsletter? Starting next month, we will include a brief sketch of each author or columnist. We would have started this month but just didn't have time to put material together for everybody so we'll give our writers another month to think about what they want to reveal about themselves! Also if you are sending material into the newsletter, be sure to include a few lines about yourself.

Speaking of submitting material, the deadline date is the 12th of the preceeding month. Almost everybody ignores that date.

After all, to have something ready by then, you must be working on it prior to that. And for many of our writers, this means that by the time they actually receive the current issue, it is time to be writing the column for the next issue. When material comes in on the 13th, 14th, 15th, 16th, etc., it just means that the finished product is going to take that much longer to put together and get mailed out. Since there is no August issue, I am not overly concerned if the July issue goes out a little late, but I did want to remind authors that it really does matter when material is submitted. I think we should be shooting for a consistent mailing date each month. Let's get back on track in September and try and stay there.

If you are receiving CURRENT NOTES as a member of one of the local clubs, you have undoubtedly noticed that your club officers and meeting times are listed in the back of the newsletter. I always print any material submitted by any club. If you never see information about your club, it is because your club never submits anything. Many readers may feel this is a good policy -- keeping coverage of local clubs down to a minimum. If so, be sure to pass that info onto your club officers. On the other hand, if you feel that there should be more club coverage, you'll have to pass that info on as well. I just wanted to point out that the information in the club sections -- and its accuracy -- is, ultimately, the responsibility of the individual clubs.

If you have a friend who has an Atari, why not bring him/her to your next club meeting? If they can't make it to the meeting, perhaps they can pick up an issue of the newsletter and learn more about their Atari and the local clubs. Remember, though, you don't have to give up your copy. About 600 copies of CURRENT NOTES are available in stores throughout the metropolitan area. If they are not close to one of the Atari dealers, they can usually find CURRENT NOTES in any of the CROWN BOOKS stores.

Local readers may not be aware of it, but I might also mention that about 500 copies of the newsletter are sent to Atari stores outside of this area (in New York, Pennsylvania, Kansas, California, Washington, and Ottawa). In addition, we have over 300 subscribers scattered across nearly every state in the country. If you are one of these subscribers and have a local Atari store in your area that might be interested in carrying CURRENT NOTES, feel free to show them your copy and have the owner contact me for further information.

One final note. This issue was done once more on the KISS laser printer. Hoping to make the print a little easier to read, I switched from 15 cpi to 13 cpi. I hope you like it. I have also decided to purchase the laser printer so future issues should be able to maintain the same print quality as the last three months. Now, if only I can escape this cut & paste mode!

Letters to the Editor

The Strobe is the Culprit

Dear Bob:

Just read your "Unprintable Adventure" in CURRENT NOTES for May, 1986. Hope you don't mind if I shed some more light on the subject, along with a few shadows.

We, too, have had problems hooking some printers to the 520ST. For example, we have an Okidata 2350 printer (the model number represents the price -- it goes about 400 characters per second, throughput over 300 characters per second) which, when used with the ST, often double prints characters. After much experimentation, we have decided the problem lies in the ST's printer strobe signal. Whether it is too short, too long, not powerful enough (i.e., it can't sink enough current to produce a good logic level 1 or 0 at the other end of a cable), or whatever, we do not know. But due to the nature of the problem, we are reasonably convinced that the strobe is the culprit.

Why, then does your printer not work at all? Why does the printer buffer work? Well, if the strobe is barely within minimal specifications for the Okidata (and sometimes falls outside them), might it not be completely outside the requirements of your printer? As for the buffer, suppose it has specifications essentially identical to the Epson "80" series (a sensible choice for a buffer manufacturer). Then it can respond properly to the ST. And if its output port is a little "looser" (i.e., if it has better drive or a longer strobe or whatever is needed by your printer), then all is explained.

However, there is a caveat here: it follows that not all printer buffers will necessarily work properly with the ST. After all, if they were designed to meet the C.Itoh or Okidata specifications, how could they work any better than the printer itself? (Possible exception: if you could significantly reduce the cable length to the buffer, then it might work where a long cable directly to the printer wouldn't). In any case, I think you could do all of us a service by telling what brand printer buffer worked for you.

Finally, one more caveat, this time for 8-bit users. That same Okidata 2350 printer works great with our 8-bit machines (not even any funny double prints a la the ST), if you use an 850 interface! Although we have not tried all other available interfaces, we know that the MPP (Supra), Axiom, and Ape-Face interfaces cannot and will not drive this printer -- at all! (We have the new "P:R:" from ICD but have not tried it yet.) So here is a case where Atari is the good guy and the other manufacturers get the black hats. You figure it out.

Good computing,
Bill Wilkinson
O.S.S., Inc.

Bill,

We used the ATR-8000 as the printer interface device in all of our tests with 8-bit Atari machines as well as those conducted in cp/m 2.2 mode. We will test with the 850 and let you know the results.

The printer was tested with the ST using two different buffers: (1) Stylewriter -64K, Carolina Engineering Labs; and (2) Ramjet -256K, Omnitronix. Both of these products worked perfectly and are commercially available throughout the U.S.

We agree. The strobe is the problem. Bill Price indicated to me several weeks ago that the strobe on his MSP-20 must be >.5 micro-second while for the C.Itoh/Commodore only >30 nano-seconds (the MSP-20 works with the ST). Our problem was we didn't fully appreciate the information at hand until your letter. We now know either the strobe is too long or the current is the culprit.

Best wishes,
Bob Kelly and Bill Price

Is Excalibur Available?

I read last month's "Unprintable Adventure" with great interest. Once again, Atari Corporation has remained true to form. I have recently undergone a similar experience.

In February, I received a telephone call from an Atari enthusiast desperately seeking to find Excalibur, Chris Crawford's fine simulation of Arthurian Britain. Since the game is no longer available for sale, the individual telephoned Atari Corp. and sought their help. Atari's response: seek a copy from your local User Group!

So, the conclusion the individual can draw is that Atari complains of piracy and then advocates User Groups to engage in this policy. I was reluctant to do so without written consent from Atari Corp. After numerous telephone calls to Sunnyvale, the best answer seemed to be to write and obtain permission from Atari's corporate counsel.

My letter was mailed on 6 February. To date, there has been no response. Can we expect one? Seriously, Atari, if you expect to remain a viable corporate entity, one would assume that your legal staff would have the professional courtesy to respond to a question.

Atari Strikes Back!

Sincerely,
M. Evan Brooks
Annandale, VA

Easy-Draw is for DRAWING

I would like to commend "Current Notes" and John Antomiads for an in-depth review of Easy-Draw. At this time however, I would like to discuss some of the comments published regarding Easy-Draw's drafting (design) capabilities.

As Mr. Antomiads has reported, Easy-Draw is not a DRAFTING program. It is a DRAWING program!

Since drawing programs fill such a wide area of applications, (between paint and drafting programs) often it is hard to differentiate where one stops and the other begins. Easy-Draw is a general purpose drawing tool for the ST which continues where recreational paint programs end, enabling users to produce professional graphics. Because of the power of the package and ease of it's interface, many people are using Easy-Draw for applications that previously might require a higher price drafting product.

As mentioned in the review, Easy-Draw compares as a quality product to drawing packages currently available on the Macintosh and the IBM P.C. Because of this, thousands of Atari ST users are currently producing business forms, newsletters, advertising layouts, floor plan design, simple schematic layouts, illustrations, etc.

As Migraph provides professional clip-art packages and laser printer drivers, you'll see more areas where a professional drafting program can make a real impact in the office or at home.

We are anxious to see the ST serve as a computer aided drafting/design workstation, however the capabilities of a full drafting program would be offered in a separate Migraph product, which would share the same price performance ratio that Easy-Draw brings to Drawing Programs.

I'd like to thank you for this opportunity to explain Easy-Draw's place in the market and to also let all Easy-Draw registered owners know that version 1.03 is now available. Just send your master disk and \$3.00 to Migraph, Inc. Those of you who are using Easy-Draw text capabilities will enjoy the enhancements of mixing text and graphics on your printouts.

Sincerely,
Kevin C. Mitchell
President, Migraph, Inc.

Creative — Once More

I'm afraid I owe CURRENT NOTES readers an apology. I'm embarrassed to say that in my recent review of Antic's "Creative Process" I let Antic put one over on me.

In that review I reported, based on obviously

inadequate testing, that the very destructive COPY bug in version 1.4 had been fixed in version 1.5. Antic's documentation for 1.5 acknowledged the bug and reported it fixed, but alas it was not fixed, only buried a little deeper. It continues to be a very destructive bug that permanently garbles your outline if it gets you -- the garbled portions cannot be erased. Fortunately, version 1.6, which arrived from Antic on May 9, appears to have actually fixed this bug.

But don't get your hopes up -- Antic has pulled another whopper in version 1.6! The procedure for backing up your outline files -- saving them as unformatted DOS text files that can be read back into the outline if necessary -- no longer works! It worked in versions 1.4 and 1.5, as I reported in my review, but that was way back last January and this is May -- things change, I guess. What else can I say?

This backup procedure is important for another reason besides just making backups. Version 1.6 has actually fixed the enhanced density bug I described in the review, so now you can use enhanced density on 1050 disk drives for greater outline size and text capacity, but the only way I can think of to transfer existing single-density outlines over to enhanced density is to save them as text files and reload, using the utility provided for that purpose. Sorry folks, no cigar -- it just doesn't work -- unless you've got 1.5 around and can use the old (misnamed) WP2CMP utility, which finally did the job where 1.6 failed.

There is also another annoying, potentially frightening, but nonetheless nondestructive bug in the command for moving points. The problem has only occurred for me when I have tried to move a point after the outline display has been condensed by setting the top level. What happens is that the outline AS DISPLAYED may become totally garbled, but fortunately the display seems to clear up okay if the user clears the top level and resets it. This may even be fixed in 1.6; I haven't encountered it yet in the new version.

There also seems to be a sporadic malfunction in the retrieval of text when one hits START or control-P (when already in text mode). Several times I have gotten a blank text screen when there was text on the disk, and other times the text retrieved was an earlier version obtained direct from computer memory when a later version (with additional text, for example) had already been stored on disk. Again, however, the problem is nondestructive because the text on disk can then be retrieved by use of the SELECT key, but this is clearly a malfunction that can prove very frustrating.

In spite of these problems, I'm continuing to use the program heavily. "Creative Process" is close to being a truly powerful and important piece of software for the Atari. The user needs to be forewarned, however, that there are still serious bugs, even in

version 1.6, and you just can't count on Antic to do what a software publisher ought to do, which is to test out the revisions before releasing them. It's a damn shame, because "Creative Process" could be such a great program if Antic would just get its act together.

Don Tucker
Bethesda, MD

Trouble with Gemini

I have found it impossible to get AtariWriter Plus to print in double columns on my Star Micronics Gemini 10X printer. I have used every imaginable printer code and combination of printer codes from the Gemini 10X manual in trying to build the custom printer driver that Atari boasts as a feature with AtariWriter Plus.

Another interesting feature is that when CNTRL P is used when the paragraph spacing is set to 1 (CNTRL D with 1), the result is subscript print!

This is the third AtariWriter Plus that I have purchased. The first two had faulty Proofreaders. I never really had a chance to check out the double column feature with the first two sets. The two major reasons I purchased AtariWriter Plus were the spelling checker and the double column feature. I really like the idea of not justified double column printing. Judging from the print preview, that is an option. I have PaperClip 1.2 and use its double column feature quite often, but with it the margins are automatically justified.

Any insight you could provide would be greatly appreciated.

Yours truly,
Robert L. Marrott
Bloomington, Indiana

[I don't know if this will solve your problems, but the following notes by Bill Zinn (reprinted from the March, 1985 issue of ABACUS) seem particularly relevant.]

ATARIWRITER+ Printer Driver for the SG10

Those of us with the Star SG10 printer have had some problems with the printer driver editor built into the otherwise excellent ATW+.

Thanks to John Skruch, Manager of XE software at ATARI, here are the codes for a working SG10 driver. It was developed by Eric Ginner also of ATARI. John assures me that it produces two-column text if sufficient memory remains for the computer to format the text just before printing. The only problem: expanded condensed text will not print in column one.

Because Mr. Ginner's driver does not permit mixing NLQ and proportional fonts with other fonts in the same file, I have included an alternate set of codes for setting up the fonts in the driver editor. I have not had time to test either set on the 130XE to verify that they permit two-column printing.

NOTE: SELECT/UP-DOWN ARROWS do not work for superscripts and subscripts. Control G codes are required. Also, when changing fonts within the file a <CTRL> G1 should always be used to turn off super/subscripts, italics, double-strike, (and proportional if using my alternate codes) before selecting another font.

CODES TO ENTER FOR EDITOR PROMPTS:

=====

Initialize every line	blank
Line feed & CR	155
Underline off	27 45 0
Underline on	27 45 1
Backspace	8
Elongate off	27 87 0
Elongate on	27 87 1
Bold off	27 70
Bold on	27 69
Up 1/2 line	blank
Down 1/2 line	blank
Down 1/2 line and CR	blank
Return w/o line feed	155

Font	Type	Codes
#1	Pica	27 84 27 53 27 72 27 66 1
#2	Condensed	27 66 3
#3	Proportional	27 112 1
#4	Superscript	27 83 0
#5	Subscript	27 83 1
#6	Elite	27 66 2
#7	Italics	27 52
#8	Double Strike	27 71
#9	NLQ	27 66 4

The following alternate font codes turn off proportional with <CTRL> G1 and turn off NLQ whenever any of the other fonts are selected:

Font	Type	Codes
#1	Pica	27 84 27 53 27 72 27 112 0 18
#2	Condensed	27 66 5 27 66 3
#3	Proportional	27 66 5 27 112 1
#4	Superscript	27 66 5 27 83 0
#5	Subscript	27 66 5 s7 83 1
#6	Elite	27 66 5 27 66 2
#7	Italics	27 66 5 27 52
#8	Double Strike	27 66 5 27 71
#9	NLQ	27 66 4

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ATARI SCUTTLEBITS

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by Bob Kelly

For those who regularly tune in to this column, work on the reader survey is proceeding. Needless to say, the results will not be published in this issue. They will be available next month. As of May 15, I have received roughly 250 questionnaires which translates into 12,500 data entries. The response represents 20% of the membership of the combined Atari user's groups in the Washington Metropolitan area. John Lauer, formerly Vice President of the CPM user's group, is helping - thank God. H & D Base, a dBase II look-alike, is being utilized to tabulate the results.

Frequently, people talk of the computer mecca as being either Silicon Valley outside of San Francisco or the Boston metropolitan area. Consequently, it is taken for granted that most of the industry brainpower has gravitated to these two areas. While on an airplane returning from California, I read an article in the May issue of the United Airlines magazine describing the job market in Washington, D.C.:

"MCI, Comsat, Satellite Business Systems, GTE Telenet, and other Washington-based firms have turned the area into a stronghold of telecommunications But the most radical change yet has come in the realm of computers. The government's most recent census of service industries showed that the revenues of Washington's computer and data-processing services were three and a half times higher than they had been just five years earlier.

While Silicon Valley and Boston have been garnering much of the computer world's publicity, Washington has quietly amassed the lion's share of brainpower. It now has more computer specialists - scientists, researchers, analysts, and programmers - than both of those markets combined. It even beats Silicon Valley in its proportion of computer specialists, because the employment there is weighted more toward soldering and assembling than toward computer knowledge."

Interesting? Of course, but it should not come as too great a shock. Many of those computer/system specialists are in your local Atari user's group. The existence of this expertise has helped many Atari users locally and nationally. My frequent contact with these experts provides a lead to the main topic of this month - my interview with Neil Harris, former editor of the Atari Explorer and now a corporate official, in Sunnyvale, California on May 9th.

I traveled to Sunnyvale with great expectations. I was interested in discussing Atari's general marketing strategy and the sales performance of the 8 & 16 bit computers to date. Current Notes is now the largest dedicated Atari user's newsletter in the country and hopefully Atari would have some interesting information to relate to its loyal following.

I opened the interview by asking Mr. Harris who Atari considers it's major competitor to be in the home market. He responded that Atari wanted the Commodore 64/128 user who desired a more powerful machine at a reasonable price. (I presumed this meant someone interested in upgrading to an Amiga.) I continued by asking whether he considers the array of IBM clones competitors since many home computer buyers use IBM's or look-alikes in their work environment. Mr. Harris responded in the negative. The IBM clones were not in competition with the ST for the home market. I noted that one can purchase an IBM clone with a 20 megabyte hard disk plus one floppy drive, 640K of memory, XT keyboard, graphics card, and B/W monitor for less than the retail price of the 1040 ST. Mr. Harris responded to this by saying "See what the price of our hard disk is after one year."

At this juncture, I was more or less at a loss for words. I pointed out that many Atari enthusiasts as well as non-Atari computer users in the Washington, D.C. area were hoping the ST would tap the enormously rich IBM software base. The development by Atari of an add-on box with 97% plus IBM compatibility would convince many to buy an ST. I was not prepared for his response "If they need P.C. compatibility, then go to the IBM clone."

After the last statement, I decided it was fruitless for me to pursue this issue. I changed the topic. When might Atari promote the concept of "Desktop Publishing" for the ST? Mr. Harris responded that Atari does not have enough product to support a small business strategy in the near-term. Further, no move in this direction will be made until Atari develops a low-cost laser printer (no date for its introduction was supplied). I inquired as to how 130XE and ST sales were going as well as total sales for 1986? He replied that sales were going fine, but as to actual level of sales, Atari's policy was not to make this information public. By this time, the interview had consumed 40 minutes counting the numerous incoming phone calls. I had made arrangements for discussions with others at Atari but decided to forego the chance of being stonewalled again. I returned to San Francisco to continue talks with the Chinese trade delegation who were far less inscrutable.

As an addendum, Jerry Pournelle, who writes the "User's View" in InfoWorld, discussed the recent Comdex Show in his May 12th column. The focus of his column was the best of Comdex. He had some nice things to say about Atari, as usual, but in his opinion

the show stopper was:

"I've saved the best for last: Commodore's Amiga. Atari had enthusiastic crowds, but the Amiga sparked a feeding frenzy Best of all, though, was the Amiga Sidecar. This is a box with a 5 1/4-inch disk drive and both 8088 and 8087 processor chips. It's not only 98 percent IBM PC-compatible, it's faster than a PC XT - and the PC program runs as one task. The Amiga can have three more going at the same time. It's eerie to watch Flight simulator in a back-ground window to a word processor program.

The Sidecar changes things a lot. Look, for less than I paid for a 128K Macintosh, I can have color, a good keyboard, more memory, multitasking, the Amiga's superb graphics, mice, and complete PC compatibility. Amiga/Sidecar will run both Generic Cadd and professional Autocad; if there's an architect or civil engineer in the nation who doesn't have a CAD system yet, here's the best deal I ever heard of."

Despite Jerry's praise of the technical aspects of the Amiga (which I don't doubt), Commodore has increasingly serious financial and managerial problems. It must survive to compete in the marketplace. Right now, this is very much in doubt. In any event according to the local rumor mill, Atari may be rethinking its position on IBM compatibility. It's no technical feat to produce an IBM box - clones abound. As for me, I have decided to delay my purchase of a 1040 ST. I hope Atari is not blinded by the light of recent favorable publicity. If Atari decides that the PC/IBM box it produces need NOT have graphics capability, does NOT require expansion slots, and need NOT run Lotus 1,2,3/dBase III/SideKick, I will then follow Mr. Harris' expert advice and purchase an IBM clone.

Nibble Bits

Atari news and rumors, uncensored:

-- Letter Perfect: LJK has announced they will be producing a 128K version of their excellent word processing program. They also stated under development is a word processing program for the ST. Introduction maybe in the fall. Maybe? Sometimes it is hard to give free publicity.

-- Happy: Whatever happened to version 7.0? This is the great mystery of the Atari 8-bit world. Happy is still advertising but they are not responding to user inquiries on this matter. Could it be an un-happy end is near?

-- SWP: The creators of the venerable ATR 8000 (Atari-cp/m) will not make an MS-Dos/PC-Dos add-on box for the Atari ST. This is certainly a disappointment since all their products have an excellent reputation. However, I have it from very high authority SWP may introduce a product for the ST which

will be a real stunner. Simply put, if this product materializes, every ST user will buy one. I have already ordered mine but it's market introduction will be no small feat.

-- Atari Explorer: Have you wondered where your magazine is? David Ahl, formerly of Creative Computing, is now the editor and an issue will be out on or about July 1.

-- BBS: The Atari Corporation bulletin board is receiving about 2000 calls per month. It has a wide range of programs available for downloading. The phone number is 408-745-5308. Incidentally, the ARMUDIC-ST BBS is operating locally under the FoRem system on 703-569-3227.

-- Atari advertising: Have you noticed the increase in Atari advertising? For example, JS&A Products has been advertising the 520ST in the United Airlines Magazine for several months. Of particular note in the United advertising supplement for May, JS&A is featuring a full-page spread on the 130XE! Who would have guessed?

Till next month and the survey results

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TEAM Software, a cut above

=====

BATTLE BYTES

=====

by M. Evan Brooks

Star Fleet I

(Cygnus Software) -- \$50.00 ***

ONCE UPON A TIME IN A GALAXY FAR, FAR AWAY (Oops, sorry! Wrong universe). But seriously, back in the truly ancient days of computerdom (i.e. the early 70's), college students could often be found ensconced in the University Computer Room playing Star Trek, a main-frame simulation. For those of us weaned on Star Trek, and for those of us just desiring some fun, it was a grand simulation. Of course, times have changed...

Cygnus' Star Fleet I resurrects the old classic with parameters on a home computer that we never dreamed of on the mainframes. Upon opening the package, it is apparent that this is a labor of love. The documentation runs over 100 pages (including the Atari supplement).

While historical accuracy cannot be verified in a game of this type, the "feel" is all-important, and SFI has it in abundance. While the documentation may appear overwhelming, much of it is "chrome" -- nice to have, but not mandatory to enjoy the game.

As for the game itself, one begins as a cadet on a training mission. After sufficient completions of search-and-destroy missions, the player is promoted -- eventually to the rank of Admiral Emeritus. On top of seeking to ascend the military ladder, successful missions may well result in the Alliance's grateful bestowment of medals and decorations upon you, the valorous player.

Of course, the enemy is persistent. Krellan ships (i.e. read Klingon) are continually nibbling away at your Star Bases, and it is a poor commander who permits the destruction of a Base. Furthermore, in the more advanced scenarios, one may encounter the dreaded Zaldrons, a reptilian-like race with the benefit of the cloaking device (which renders their ships invisible; Captain Kirk, where are you now that we need you?). Although the 64 quadrants in your sector consist of 100 sectors each, one will never face more than 5 Krellans and/or one Zaldron per quadrant. Introductory scenarios do not allow the enemy to move, while more advanced scenarios permit movement intra- and inter-sector.

Options and decisions abound. While you are not initially aware of the location of your Star Bases, they will quickly make themselves known when under attack.

Therefore, your early efforts should be made with a view to determining the location of a Base for resupply purposes. Your ship is armed with torpedoes (which may also be used as mines) and phasers (which utilize a LOT of energy). Besides simple targeting, one must properly navigate through space (the target calculator does this just fine; manual navigation may be an exercise in frustration). On top of this, one may utilize long-range probes, long-range sensors, tractor beams, transporters, internal security (one never knows when an infiltrator will beam aboard on a mission of sabotage), damage control and repair, and for the truly desperate, emergency hyperspace maneuver and/or self-destruct (you can take it with you!).

The graphics of SFI are adequate; they accomplish the mission in an informative way, but the real attraction of this game is the panoply of options and their interrelationships. This is not to say that the game is a strategic mind-bender. On the contrary, it is relatively easy to learn and to play (long missions may take 3 hours, but one may elect shorter durations or save the mission at virtually any time for later play). In this reviewer's library, SFI has become the game of choice when a short-time resolution is desired and a game of major decision-making a la War in Russia is simply too much to chew.

This reviewer must admit that this review may be somewhat premature. Upon purchasing the game, one must send away for the "Training Manual" which yields tactical hints and other assistance. To date, this has not been received, and many purchasers have noted a similar delay in receipt. However, since this reviewer has now been promoted to the rank of Commander and decorated with 2 Star Fleet Citations for Gallantry, the Knight's Cross of the Iron Cross, the Hero of the Alliance Gold Star and 2 Alliance Defense Crosses with Gold Star, it would seem that the manual may not be required reading. But then again, it is free for purchasers of the original package (it is assumed that this market maneuver will prevent piracy and give the company a ready mailing list).

The following tactical lessons should be learned early:

(1) Make sure that you are aware of the location of a Star Base for resupply before engaging the enemy in a do-or-die mission. Generally, you should not engage more than 12-15 of the enemy before insuring that resupply can be achieved.

(2) You are limited to 20 torpedoes per resupply. However, if you are coasting in for resupply with extra torpedoes, simply lay them as mines in the same sector as the Star Base. Then after being resupplied, pick up the mines and you now can have up to 30 torpedoes maximum. Is this kosher? Probably not, but then again, this is a fight for the Freedom of the Galaxy!

(3) Manual navigation may be tricky. Since 0 degrees begins on the X-axis, true north is really 90 degrees. For one used to map readings, this can be difficult to grasp. Therefore, use the target calculator, and the work will be done via ship's computer.

(4) Your ship comes with the auto-alert on, i.e. shields will automatically be raised when necessary. Of course, the shield configuration may not be to your liking. This reviewer recommends leaving auto-alert active. You can always change shield configurations at your leisure, but coasting into a supposedly quiet quadrant only to be greeted by enemy torpedoes is not a fun way to spend your vacation!

(5) If energy and time permits, try to disable enemy ships, board them and bring them back to Base. The Alliance likes prisoners! But be careful that you don't spend too much time on this.

(6) Rescue any beleaguered Star Base! Loss of a Star Base is inexcusable and presents sufficient justification for your exile to the salt Mines of Altair IV.

(7) Make sure that any endangered Star Base is indeed rescued. If there is an invisible Zaldron present, one must simply grit it out. The Zaldron's cloaking device will use enough energy to render him an easy target eventually. Wait it out if at all possible.

(8) TIME! Time is the determinant of victory. Generally, one must destroy at least one enemy per day. With travel throughout the Galaxy and resupply, it is not an easy task. But try to keep pace. If a single ship is proving too difficult, try another location with more enemy targets. There are more targets than you will ever need, so keep shooting!

(9) For maximum kills, torpedoes are the weapon of choice. For capture and seizure, use phasers (the computer will tell you how much energy is required; usually 10 energy units less will render the enemy disabled and an easy boarding victim).

(10) Repair critical damage quickly. Loss of short-range sensors may render you impotent in a firefight.

(11) Keep an eye on energy levels and resupply when necessary.

Of course, there are some minuses:

(1) Although the master disk is unprotected, early Atari edition releases had numerous bad sectors, thereby preventing creation of the player disk.

(2) Early Atari versions have a tendency to crash at certain times (e.g. the maximum award cannot be obtained; the program crashes instead).

(3) It is difficult to gauge one's progress.

While the mission status report may show 75%, actual performance may exceed that by a factor of two hundred percent.

CONCLUSIONS:

Discussions with the designer revealed that the flaws have been corrected in later versions. Dr. Sorensen has obviously put a lot of work into this product, and it shows! But, as the title notes, it is Star Fleet I -- The Battle Begins! We may expect a sequel c. September-November.

Battle of Antietam (Revisited)

This reviewer would like to note two addenda to last month's review:

(1) Artillery is too powerful; but this flaw will be corrected in Gettysburg and later battles.

(2) Upon further reflection, this reviewer has decided the biggest flaw in BOA is intelligence. As the Union commander, the player is simply too knowledgeable. If McClellan had known the true orders-of-battle, the result would have been different. The game could have been rendered more novel via the following mechanism: four different strength scenarios, as follows -- (a) historical, (b) Union and Southern Armies equal strength, (c) Southern Army double Union Army strength (McClellan's nightmare or "Pinkerton Strikes Again"), and (d) a random in which one of the prior three scenarios is chosen. This lack of knowledge as to the size of Lee's Army would render the Union player into true McClellanism. No longer may the Union damn the casualties and full speed ahead! Destruction of the Army of the Potomac would render Washington defenseless.

From the Trenches: SSI's USAAF and Microprose's Gunship may be released shortly, but the remainder of the market is quiet. Also, Dr. Bever from Microprose, originally scheduled for the May meeting, has been rescheduled for June. Come and hear him discuss computer wargaming and the market today!

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Lister Plus and MegaFont II+ Go "One-On-One", Part Two:

Introducing MegaFont II+

by W. Williams Schadt

In last month's issue of CURRENT NOTES, the first segment of this series introduced a program called Lister Plus from Non-Standard Magic. This second part introduces version 2.0 of MegaFont II+, the other player in this "One-On-One" competition. MegaFont II+ is a \$24.95 program from XLEnt Software at P.O. Box 5228 in Springfield, Virginia 22150. Text files or listed programs that contain graphic or inverse characters can be printed with a normal or redefined character set, and graphics 7+/8 screen files stored in a variety of formats can be printed.

The documentation for MegaFont II+, unlike some of the documentation from XLEnt Software, is good. The options that appear on each screen menu are highlighted and explained clearly. The text is well written and printed in an easy to read format.

The program boots in 53 seconds, and the first screen requests the identification of the printer to be used. MegaFont II+, hereafter referred to as II+, supports Prowriter, NEC, Prowriter BP, Epson, Panasonic, Riteman and Gemini 10/10X printers. There is no provision built into II+ to support other printers, and there is no printer driver construction utility.

II+ should be booted without BASIC, but if you forget to hold down the OPTION key to disable BASIC, the program seems to work just fine. It appears that BASIC is automatically disabled, thus saving you the bother and time of having to start over again. I do not know whether this works on the Atari's which use BASIC cartridges.

The II+ main menu presents five options:

1. List a Text File to the Printer.
2. Dump a Graphics 7+/8 Screen.
3. Mini-DOS
4. Change Printer
5. End

The first option from the main menu is selected to print a text file complete with all graphics and inverse characters. A special file lister menu appears on the screen, and the available choices are:

Choice #0 turns off the video screen to increase speed when the text file is printed. Initial tests indicate that turning off the video decreases printing times by, at most, 14 percent. The only thing strange about this first choice is the fact that it is number zero.

Choice #1 loads in any standard nine sector font file from a disk and uses that

font for printing operations. The redefined characters from the special font are not displayed on the screen.

Choice #2 controls the size of the printed characters. The three sizes are small, medium or large. Selecting the small character size results in 15 printed characters per inch, medium yields 7.5, and large gives 5 characters per inch.

Choice #3 adjusts the line spacing to single, double or triple spacing between each printed line.

Choice #4 toggles between continuous printing and pagination with 55 lines per page. This is a handy feature when long files are printed, but it is of little help when printing on single sheets because there is no automatic pause between pages.

Choice #5 defines the left margin according to print column position, and the range of values is from 0 to 119. This gives the user the ability to precisely control the desired horizontal printing position which is handy for special applications.

Choice #6 sets the right margin according to print column position with values ranging from 1 to 120. This adds complete flexibility to positioning the printing, but I do not understand why the number ranges for the two margins are different.

Choice #7 activates a boldfaced printing feature. On an Epson MX-80 with Grafrax, #7 turns on the double strike printing mode.

A "fast" print mode is available which prints text at high speed and always uses the standard printer font and spacing. When this is selected, the graphics printing mode is only activated for those lines which contain graphics characters. This is a powerful feature because it gives II+ a definite advantage in the speed department. Also, boldfaced printing can be used during "fast" print mode which combines good print quality and speed. The only problem is the fact that the automatic pagination feature (#4) does not work when the "fast" printing mode is selected.

After selecting normal or "fast" printing, the next prompt requests the name of the file to be printed. You can also enter "E:" at this point to allow keyboard entry of text instead of reading text from a disk file. This feature worked reasonable well, but I had some trouble knowing when I had entered sufficient text to fill exactly one full printed line. If the print size was set to "LARGE", one printed line was equivalent to one screen line of 38 characters plus two additional characters on the next screen line. Set on "MEDIUM", one printed line was equal to one screen line plus 22 characters; and "SMALL" resulted in one printed line for exactly three screen lines. This feature should be improved so

that the right boundary of the printed line is somehow displayed on the screen.

If the RETURN key is not pressed while in keyboard text entry mode, you can enter a screen full of text and graphics characters first. When you want to start printing, just move the cursor to the top of the screen and start pressing the RETURN key. You will have to do a lot of experimenting with this feature to get what you want. Once you start entering text on the screen, there is no method available to return to the file lister menu without erasing the text on the screen.

The last function available on the file lister menu is the ability to download fonts to printers with buffers which support font downloading. According to the documentation, II+ will download fonts to an Epson FX-80, a Panasonic KX-P1092, a Prowriter 8510BP, and a Prowriter 8510AP that has been modified with the extra memory chip. This is a handy feature if you use one of these printers, but it was not tested because I do not have access to these printers.

The second option on the main menu allows dumps of graphics 7+/8 screen files. The printing can be normal or inverse; the size of the printed image can be 1/8, 1/4, 1/2 or a full page; the left margin can be set from column 0 to 24 if the print size is 1/8 or 1/4 page; and boldface printing can be selected. This last choice had a definite effect on my old Epson MX-80 with Graftrax, it double printed the image making the dark portions much darker.

The spacing between printed lines of a screen dump can be adjusted in units of 216th of an inch by pressing the "C" key. This is sometimes necessary to eliminate white streaks or overlaps in the printed image. Printing can be temporarily suspended by hitting the "P" (for pause) or "S" (for start) key, and the ESCAPE key aborts the printing process at any time.

Several different picture file formats can be printed by II+, and they are: Micro Illustrator, Micro Painter, Koala Pad, Atari Artist, PAGE DESIGNER, TYPESETTER, RUBBER STAMP, and regular 62 sector.

At this point, I would normally include a table showing the size, orientation, offsets and elapsed times for the various screen dump configurations. But, that information for II+ was included in an article called "The Size and Shape of Screen Dumps" which appeared in the March 1986 issue of CURRENT NOTES. The third part of this series will include the timing data for a screen dump with boldfaced printing selected.

The third option from the main menu provides access to a mini version of DOS allowing the user to manage disk files. The fourth option returns to the printer selection menu. And the fifth option is an exit from MegaFont II; pressing the OPTION key reboots the II+ disk, pressing the START key simply reruns II+, and pressing the START

key activates version 2.3 of DOS XL from Optimized Systems Software, Inc. of San Jose, CA.

Another feature of II+ that deserves mention is smart printing. While functioning in the graphics mode, the printer does not waste time printing blank lines or trailing white space on a line. If there is only one character on a line, the character is printed in one pass of the print head instead of four, and then the paper advances to the next line. A line feed is sent to the printer if a line is entirely blank. The smart printing feature is also active during small size screen dumps. This II+ feature, written by Randy Dellinger, gives II+ the speed performance that I expect in a graphics printing utility. I wish that XLEnt would add this feature to their other programs, especially TYPESETTER.

II+ has been released in two different versions. Version 1.0, copyright 1984, included a feature called Font Splicing that did not function properly, and the screen dump feature worked with 62 sector or Micro Illustrator compressed format files only. Character font files had to be converted and stored in separate disk files, but the need to perform that task has been eliminated with version 2.0. If you decide to purchase II+, make certain that it is version 2.0 which was released in December of 1985. The documentation with version 2.0 displays a 1985 copyright date on the cover, and "V2.0" is displayed on the screen while the program boots from the disk.

The II+ disk comes with eighteen font and two picture files. The font files have an extension of "FNT" and the picture files have an extension of "PIC." There is a PAGE DESIGNER screen file called XLENT.PD and five TYPESETTER icon files called AT800.PAD, BUNNY.PAD, XE130.PAD, XL800.PAD, and XLENT.PAD. These files allow you to start experimenting with II+ immediately.

Final conclusions about II+ and Lister Plus will appear in Part Three of this series which will concentrate on the results of performance testing.



Happy
Father's
Day!



FINE TUNING DOS

by Divemaster

[Reprinted from the March edition of the Alamo Area Atari User's Group newsletter with initial attribution to the DIVEMASTER, Sysop of the ATLANTIS BBS - 305/920-6203.]

HOW TO DELETE "TWIN" FILES

Have you ever ended up with two (or more) files on your disk with the same filename? Do you end up cursing and screaming when you try to delete one of them, then find that DOS has deleted BOTH of them? There is a way around that, folks:

- 1) Boot up DOS with BASIC in.
- 2) In the immediate mode, type POKE 3118,0
- 3) Type DOS, and press RETURN.

Now you'll be able to delete without losing both files, because by POKEing 3118,0 DOS will erase ONLY the first "twin" file. How about that?

SPEED UP DOS 2.0S

If your DOS 2.0S seems to write very slowly compared to other DOS's, that's 'cause it was a WRITE VERIFY built into it. You can easily create a new version of the DOS without the WRITE VERIFY built in. (Most of the time, you don't need it anyway -- and some other DOS's give you the option of toggling it on and off). Here's what to do:

- 1) Boot up DOS with BASIC in.
- 2) In the immediate mode, type POKE 1913,80
- 3) Type DOS, and press RETURN
- 4) Now, re-write DOS to your disk by using the Write DOS and DUP function of your DOS menu.

You have created a new DOS with the WRITE VERIFY turned off. It will write much faster now. COOL?

ARRGH! ERROR 164 AGAIN????!!!!

Awww. You got an ERROR 164 AGAIN?? Well, did you know you can still force DOS to load in the program anyway? Error 164 means you have screwed-up data on your disk. If you have a LOT of garbage, you'll have a big problem. But what if only a little bit of your file got messed up, and you just KNOW you could fix it if you could just get the file to load? Well, never fear, do the following:

- 1) Boot in DOS with BASIC in.
- 2) In the immediate mode, type POKE 4148,234:POKE 4149,234
- 3) Now LOAD your program either from BASIC or from DOS.

You won't get ERROR 164 now. And, you can fix that garbled program Ain't that just peachy?

IF YOU HAVE MORE THAN 2 DRIVES

Some DOS's (like SMART DOS) are built for systems with multiple drives, but many DOS's (2.0S, N-DOS, etc.) assume that you have only two drives, which is a no-no if you've just bought a third drive and your DOS won't access it. Well, all you gotta do is the following:

- 1) Boot in DOS with BASIC in,
- 2) In the immediate mode, type POKE 1802,15
- 3) Type DOS and press RETURN.
- 4) Re-write DOS to your disk with the DOS menu function that writes DOS and DUP.

Now you'll have written a new DOS that WILL assume that you have as many as four drives. That ought to do ya!!

CHANGE WILDCARD "*" TO

If you like to play around with DOS and want to change your wildcard character from "*" to something else (and it's up to you as to just what that something else is), it's really pretty simple. Dig out your ol' manual that shows your ATASCII characters and values. You'll notice that the ATASCII value of the "*" character is 42. Now pick out whatever character you'd like to use instead, and look up its value. For example, suppose you prefer the "+" character. You'll notice that the "+" character has an ATASCII value of 46. To make the change, do the following:

- 1) Boot in DOS with BASIC in.
- 2) In the immediate mode, type POKE 3783,46 (or the ATASCII value of whatever character you picked).
- 3) Type DOS and press RETURN.
- 4) Re-write DOS and DUP using the DOS menu function.

Now your new wild and crazy wildcard character is built right in!!

MAKE LOWER CASE FILENAMES

Yes, fans, you CAN use lowercase letters for your disk filenames. You see that in MYDOS, right? Here's how you can do it with ANY DOS! If you look at the ATASCII codes, you'll see that the value of "0" is 48, and the value of lowercase "z" is 122. Do this:

- 1) Boot in DOS with BASIC in.
- 2) In the immediate mode type POKE 3818,48:POKE 3822,123
- 3) Type DOS and press RETURN.
- 4) Re-write DOS to your disk with the write DOS and DUP menu option.

These pokes set in the parameters to accept ATASCII values in the filenames starting from 48 and ending with 122 (but the 123 you see in the POKE above is correct).

It's risky to go higher than 123, so just stick to what I told ya here. IT REALLY WORKS!!!

OPEN UP TO 7 FILES IN DOS

Have you ever noticed that you can have no more than three files open at one time in DOS? But ATARI allows you to have seven files, so why not also be allowed to have all seven of them open at once? This is a free country, isn't it? Well, it ain't so tough to do. If you want to be able to open more than three files at once, just do this:

- 1) Boot in DOS with BASIC in.
- 2) In the immediate mode, type POKE 1801,7
- 3) Type DOS and press RETURN.
- 4) Re-write DOS and DUP to your disk with the DOS function menu.

A word of caution, though. Each file that you allow open uses a 128-byte data buffer. So you shouldn't open more files (or reserve more space) than you actually need. If, for example, you'll only need to open five files at once, then you POKE 1801,5. See how it works?

ATARI PROOFREADER

Reviewed by Ron Dunn

Proofreader is produced by Atari Corporation for use with the AtariWriter cartridge word processor and 400/600/800/XL/130XE computers. It has basically the same features as those found in the spelling checker section of AtariWriter Plus.

The package contains a well-written eighteen page instruction booklet and two disks. One disk contains the program which must be booted up with the word processor cartridge. The second disk is the 36,000 + word dictionary reference, which is copiable. You may produce your own personal dictionary, but it must be on a separate disk.

As the program loads you have the choice of selecting DOS 3, or DOS 2 will load automatically. The usual menu screen appears with one additional heading, VERIFY SPELLING, which is the access to the Proofreader menu.

After preparing a text file, type "V" and the proofreader menu appears which has seven options:

CORRECT ERRORS -- word-by-word spelling correction. As the program passes through the file, it stops at, and highlights (with inverse video), each word that is not in the dictionary. You then have the choice of correcting the error, searching the dictionary for the correct spelling and subsequent correction, or retaining the spelling as is. Once a word has been "retained", it will be accepted throughout the file. All retained words can be saved to a personal dictionary file after you have passed through the text.

HIGHLIGHT ERRORS -- passes through the file and inverses each questionable word, nothing else.

PRINT ERRORS -- prints a list of all the questionable words as they appear in the file.

DICTIONARY SEARCH -- looks in the dictionary for the correct spelling of a word, you must enter at least the first two letters.

LOAD PERSONAL DICTIONARY -- adds your dictionary file to memory.

RETURN to ATARIWRITER -- shifts back to ATARIWRITER menu.

SAVE PERSONAL DICTIONARY -- saves retained words, or your personal dictionary entries to disk.

After a search of the file is complete, the screen displays the menu with the word count listed at the bottom. My daughter found this feature very handy for preparing a 1,000 word minimum paper for school. There are 587 words in this article.

The dictionary is somewhat limited, it is not given to sesquipedalianism, nor does it contain possessive nouns, nor all conjugations of verbs. It does recognize Atari, but not Atariwriter, nor Commodore (a probable intended omission by the marketing department!). It must contain all the cheap words such as "a" and "it". This takes up lots of space, and the disk is full. In comparison, the average pocket spelling dictionary lists 50,000 words in the \$.35 to \$4.99 price range, none of the real cheapies. A list is at the bottom of this article with all the words that Proofreader did not recognize in this text.

The program is easy to use even though it requires some disk swapping if you have only one disk drive. Correcting is a bit time consuming if you list only the first two letters in a dictionary search, as the window only lists nine words at a time. If you print the list of suspect words you can use the search and replace feature to make the corrections.

Dollar for dollar I find Proofreader overpriced at \$20.00 compared to Atariwriter Plus with its many more features such as eighty column editing at \$30.00.

Incidentally, there are three intentional spelling errors in this article that are not listed below. I know what they are, Proofreader knows. Do you?

Ron - Dunn - WACUG - Atariwriter - XL - XE
- copiable - sesquipedalianism - conjugations
- commodore - cheapies - consuming

ATARI's SMALL MIRACLES

by Mark A. Brown

Vertical Blank Interrupts

This month in Atari's Small Miracles we are going to work with programs that fool around with Atari's VBI. VBI stands for Vertical Blank Interrupt and is what the Atari computer does regularly. It does it (a short machine language program, that is), sixty times every second. What is the use of such a feature? Read on!

FLASH

The first program this month is a quick program that makes inverse letters turn on and off for highlighting effects. This can also be used to make the cursor flash. Grabbing somebody's attention among a screenful of text is a breeze with this program. The vertical blank interrupt is used in this instance to keep track of when the inverse letters should be on and when they should be off.

The format to start it is:

```
JUNK=USR(1536,NUMBER)
```

where NUMBER is either a zero or a one; zero if you want the letters flashing one hundred percent of the time, one if you want the keyboard to be taken into account and not have anything flash as long as a key is pressed.

FLASH takes advantage of not only the vertical blank routine but the features of location 755. If you want to have some fun with text, poke some random numbers into here. You'll find it quite interesting.

```
10 FOR A=1536 TO 1604:READ B:POKE A,B:
NEXT A:DATA 104,104,104,141,67,6,169,3
0,141,68,6,169,6,170,160,19,76,92
20 DATA 228,173,67,6,240,22,173,15,210
,201,255,240,15,169,30,141,68,6,173,24
3,2,9,2,141,243,2,208,18,206,68
30 DATA 6,208,13,173,243,2,73,2,141,24
3,2,169,10,141,68,6,76,95,228,0,0
40 A=USR(1536,1)
```

SCRCOLOR

This program is used to make sure that the screen color never changes from what you want it to be. RUN the program and then use the joystick to change the screen to the colors you like; press the joystick left and right to change screen colors, up and down to change screen brightness and press the trigger and the joystick up and down to change the brightness of the characters.

The advantage of this program over others is that once you choose that screen

color, it will stay that was as long as you leave the computer on and do not press SYSTEM RESET (and advanced programmers should be able to eliminate one, if not both, of those restrictions). The VBI simply pokes your color in over and over and over again so whenever there is a screen color change (after a GRAPHICS call which could ruin a nicely colored green screen, for example), your color choice will be instantly plugged back in.

```
10 FOR A=1536 TO 1633:READ B:POKE A,B:
NEXT A:DATA 104,173,197,2,141,95,6,173
,198,2,141,96,6,169,6,141,97,6,170
20 DATA 160,24,76,92,228,206,97,6,208,
63,169,3,141,97,6,160,0,162,0,173,120,
2,74,176,2,160,2,74,176,2,160
30 DATA 254,74,176,2,162,240,74,176,2,
162,16,138,174,132,2,24,125,95,6,157,9
5,6,152,24,125
40 A=USR(1536):DATA 95,6,157,95,6,173,
95,6,141,197,2,173,96,6,141,198,2,76,9
5,228,0,0,0
```

MARQUEE

Finally a program one can simply have fun with; MARQUEE has very little use on its own. RUN the program and type in a short message; something cheery like "Hello there" or "Having a nice day I hope." The message can be up to two screen lines long. Then press return and let the marquee take over. You'll see your message scrolling along the top of the screen for all to see!

Its format is:

```
JUNK=USR(1536,ADDR)
```

where ADDR is the address of the string you want to scroll across the top. The entire string of characters must have an ATASCII value of less than 128; anything greater than or equal to 128 is interpreted as the end of the message.

```
10 C=0:FOR A=1536 TO 1651:READ B:C=C+B
:POKE A,B:NEXT A:IF C<>13852 THEN PRIN
T "Error in data!!!":END
20 DIM A$(100):? "Input your marquee":
INPUT A$:A$(LEN(A$)+1)=CHR$(128):A=USR
(1536,ADR(A$)):? CHR$(125)
30 ? :? :? :? :? "YOUR":? "MARQUEE":?
"IS":? CHR$(28);:DATA 104,104,141,46,6
,104,141,45,6,169,196,141,114,6,169
40 DATA 40,141,115,6,169,6,170,160,27,
76,92,228,206,115,6,208,42,169,4,141,1
15,6,174,114,6,48,35,160,0,189,255
50 DATA 255,48,43,201,96,176,10,201,32
,144,4,233,32,16,2,105,64,145,88,200,2
32,192,40,144,229,238,114,6,76
60 DATA 95,228,160,0,152,145,88,200,19
2,40,176,240,232,240,210,208,244,192,0
,208,7,169,196,141,114
70 DATA 6,48,224,169,0,145,88,200,192,
40,144,249,176,213,0,0
```

The VBI is used in this program's case to put the letters on the screen for your marquee. The VBI's regularity is the key

here; every fifteenth of a second or so the message scrolls over one character, starting over again at the end.

MARQUEE actually may have some uses; you could use it for error messages (since the motion IS eye catching), instructions, etc. Let me know of any creative uses you find.

You'll notice that the three programs this month can't be run together; in fact you can only run one at a time. Trying to run more simply locks up the machine. This is an unfortunate side effect of VBI's; chaining them is rather difficult (actually it is easy but next to impossible in our space limitations), and if you chain too many VBI routines together you start stealing processor time away from normal operations, which slows everything down considerably.

A neat side effect (designed in actually) of VBI's is that they go on regardless of what the rest of the computer is doing. Try going about your normal computer business while one of these programs

is running; the flashing text will still flash; the screen colors will stay (and can still be altered with the joystick), and the marquee still runs (albeit it may have changed because the string shifted in memory). You can edit programs (even different ones), run games, and so on and these programs will still keep on running.

Atari's Small Miracles is desperately in need of your programs. You may have noticed that the number of programs appearing here has decreased over the past number of months; it started out with five, went down to four, and now stands at three. That number is liable to dwindle down to zero if I don't hear from you, the readers, soon. Send in all your programs to:

Atari's Small Miracles
c/o Mark A. Brown
7097 Game Lord Dr
Springfield, VA 22153

And I'll see you next month!

FOOBLITZKY

Reviewed by Bill Parker

INFOCOM, the dependable developer of quality text adventures, has attempted to broaden their spectrum of offerings with their first graphic assisted action/strategy game, Fooblitzky (\$32.99)..

INFOCOM's impressive past track record, and appealing packaging were more than enough to separate me from my money. Among the game's appealing attributes are the multiple player (2-4) capability (at last, another "family game" - I thought), limited playing time (1-2 hours), and broad age appeal (14 to Adult - whatever age that may be).

As to play, the exterior description on the box provides an accurate summation:

...a unique game of deduction, strategy, and chance. It's a dog-eat-dog world, as you rove the crowded streets of Fooblitzky, trying to deduce and obtain the four objects needed to win the game. But this is no scavenger hunt: victory depends on how well you use funds, keep records, and outsmart your fellow players.

Fantastic, a learning experience disguised as fun. On screen movement of each players' alternate persona, in the form of a dog, is by joystick and trigger attached to port number 1. The game even offers a "save game" capability and the opportunity to tailor various game parameters to vary the impact of chance and the degree of difficulty. What more could I ask for? Well ...

User friendliness would have been nice. An inveterate "boot an go -- we'll get to the instructions later" type when dealing with games, I quickly found that the game graphics and mechanics only became comprehensible after careful reading of all included documentation. While the game includes a three page reference card (useful after you read the manual) and a seven page "The Bare Essentials" (a bit too bare), ability to relate to the on screen activities evaded me until I made careful study of the 28-page "Official Ordinances, Rules & Regulations for the City of Fooblitzky". With both my daughters, ages 10 and 13, a game that requires reading the documentation is a game destined to gather dust on the shelf. Such remains the fate of FOOBLITZKY after nearly a month.

Expertise with text adventures does not translate well to graphics. While adequate and often cute, the graphics are clearly not state of the art. Animation is not smooth and appears to ripple across the screen in a manner I found conducive to eye strain. As the game appears to utilize graphics 8 and depend on "artifacting" for color generation, use of either a television or composite monitor is required.

Summary. While often cute and sometimes entertaining, the game fails to deliver the creditable challenge required to keep the targeted age group coming back for more. By design of the graphics and a definite leaning toward cute, the game could have targeted a younger age group well. However, lack of self-evident play mechanics, which results in a need for extensive familiarization with the manual, will limit appeal even here. FOOBLITZKY is a cute idea that failed to properly identify its prospective user and will, consequently, rack up considerable shelf time. Even the best can fall on their sword when exploring new territory.

The 1050 DUPLICATOR

Reviewed by Rick Holtzhauer

For many years now, Happy Computing's Happy Enhanced 810 and 1050 drive chips have been the choice of Atari owners for backing up software. In addition to their prime purpose for being, these products offer various other features, such as hi-speed read and write, a disk compactor, and a custom formatting option. But the fact also remains it has been the only full-featured hardware drive option available to 810 and 1050 drive owners. Now, there is a new kid on the block, the 1050 Duplicator, by Duplicating Technologies, Inc.

This review will be an attempt to inform you of what this new creature can and cannot do. I will not go into detail about the Happy chip, but inasmuch as this is the only real competition for the Duplicator, comparisons are inevitable. The Archiver, though a fine backup chip, is not included in this group, due to the fact it is not a "complete" chip, as is the Happy. I am not a disk drive or drive chip expert (my main claim to fame is being the premier F-15 Strike Eagle pilot on the naval base, although, admittedly, I'm probably the only one with the program), but I have worked with both the Duplicator and Happy extensively, and feel I can offer an accurate and informative review.

What the Duplicator Promises

Half and full page advertisements for this product have appeared in COMPUTE!, ANALOG, and ANTIC magazines for several months. The following are among the claims made for this new product:

... The 1050 Duplicator is the most powerful copy system ever developed for the Atari.

... You will be able to copy just about any disk ... any custom format or heavily copy guarded scheme, bad sectors, double sectors, 19 through 24 sector format will present no problem to the Duplicator.

... True double density ... Your drive will read and load all of your software...

... High speed read and write ... able to read eighteen sectors in the time it takes standard, unenhanced drives to read one.

... Since the drive can be fully programmable, future (software) upgrades can be made available to you on disks, should the need arise.

... No further hardware changes will ever be needed."

Does this product live up to its advertising claims? I'll let you know in

just a minute. But first ---

Delivery and Installation

They promise shipping within 24 hours. I had the product nine days after I mailed my order. Not bad at all, especially considering I am on a military installation, and the order was from California to New York. Also, as promised, installation was a snap -- just remove two chips and plug the new board into one of these open spaces. It installed exactly like the Happy board. But then I noticed a funny-looking gizmo laying in the bottom of the shipping box. Could this be a "hardware upgrade"? The advertisement said none would ever be needed. Hmmm? Back to the handbook where I learned that the gizmo was a variable resistor which had to be installed on the new board. Despite what the folks at Duplicating Technologies say, this is no simple operation. The resistor's leads had to be soldered between specified legs of two chips. Without the necessary tools on hand, I passed on this and made a temporary "tie-on" installation for test purposes.

Duplicator Copy Capabilities

After completing the installation, I booted my system and tried to copy my favorite basketball disk. The program promptly crashed. With this auspicious beginning, I decided to study the software manual. Heck, I thought, maybe I just did something wrong. I was in for a rude shock.

One of the manual's very first sentences made me feel my \$149.95 had gone down the drain. "Our present software is still weak", it said. "... you will be receiving within 30 days our first upgrade (Rev. 3) absolutely free!..." Still weak? What revision? I don't remember reading THAT in the advertisement. I mean, isn't this the most powerful copy system ever developed for the Atari? And now they're patting themselves on the back for giving me an "absolutely free" upgrade for their "weak" software. Have I been had??

You betcha! The Duplicator's copy capabilities are virtually nil. What can it copy? Simple protection schemes that have been around awhile, are uncomplicated, and of the 18 or 19 sectors-per-track type. It, theoretically, can copy a 20 sector track. A full 20 sector track is relatively new, and actually fairly simple to copy. At a drive speed of 288 rpm, the greatest number of full, 128-byte sectors that can be laid on a track is 19. Recently, however, manufacturers have found that by slowing the drive speed down to 270 rpm, they can write a full 20-sector track. This is where that little variable resistor I mentioned above comes in.

Using the rpm program supplied with the package, you set this resistor to 270 rpm. The resistor and speed are invisible to the drive system, though. If a 20 sector track is encountered during a read, when writing this track, the Duplicator will automatically

kick in the resistor you have pre-set, slow the drive to 270 rpm, write the track, and reset the drive speed. This is a nifty little operation, but there is one major problem with it.

I have never seen "20-sector tracking" used as a "stand-alone" protection scheme. All have employed, in addition, another method of protection called skew alignment. An example of one such program is my favorite flight simulator/shoot-em-up program, which otherwise is a standard 18-track format. This is a very popular type of protection, and, when used with some type of double sectoring, is used extensively by Electronic Arts, Microprose, Hayden, and others. Skew alignment, though a formidable scheme, has been around for a while now.

The 1050 Duplicator cannot copy a skew-aligned disk. Inasmuch as all 20-sector tracks I have seen also employ skew alignment along with the 20 sector format, it makes the Duplicator's 20 sector copying capabilities almost useless. The Happy can copy any skew aligned disk. The Archiver, when used in the Editor mode, can also copy one. The Archiver can also copy this new scheme in the Editor mode by simply reading the track in, slowing down your drive to 270 rpm, then writing it out. Happy, though lacking the ability to read 20 sectors, can write 20 sectors when slowed. Examples of the 20-sector per track type are Silent Service, Sargon III, and Kennedy Approach.

Deprogramming the Drive

Despite what you may think of the Duplicator's copying (in)abilities, its most serious problem, by far, lies in deprogramming the drive. Duplicating Technologies makes it sound as though the drive is undetectable in its deprogrammed state. That's simply not the case. You can deprogram the drive using the copying software package or one of the functions of the supplied DOS (see below). If so, why can't I find an independent way to accomplish the same thing? Or why can't commercial software manufacturers? We all know how much publishers just love to detect a modification like this, and wreak havoc with it when they do.

So, I decided to find out how easy it is to detect it, regardless of the programming mode. I came up with about a hundred byte program which will detect the presence of the Duplicator's hardware mod (whether or not deprogrammed), turn the fast speed on, off, and kick in and out the 270 rpm speed. I can also make the drive do some very strange things. If the Duplicator is not present, you simply exit to BASIC.

What does this mean? Why couldn't software publishers include such a routine in their products? In my program, for instance, it would require the user to PHYSICALLY REMOVE THE DUPLICATOR FROM THE DRIVE to get to BASIC!!! You single drive owners, imagine having to do THAT every time you want to run certain programs. I guarantee when this gets

out to software manufacturers, and it will, they will have a field day with a Duplicator enhanced drive, and rare will be the new software that will operate on its drive.

This is not the worst of it, though. On a stock drive, trying to read any sector before 1 and after 720 will result in the Y index returning a value of \$8B to memory location \$303 (DSTATS). Not with the Duplicator. It will return a value of \$90. A value of \$90 represents a bad sector. Of all the deficiencies listed so far, this may be the death of the Duplicator. Because the drive is programmable, it will be possible to change the method the drive is turned on and off, though it will take some effort because it is a major revision. Getting the drive to return the correct value of \$8B instead of \$90 may be a different story.

Support Software

The software included is very simple to operate. Much too simple, in my book. You're just required to specify the source and destination drives, and hit RETURN. That's it! The only two options available are the "exit program" mode, which just reboots your computer (handy to test a disk just copied) and the "deprogram" mode, called the forced slow mode. This will make your drive resemble a stock drive. That's it. Most noticeably missing is a selective track option. You can't ask the program to copy only the first 3 tracks, it's all or nothing! And copy time is incredibly long! Over 6-1/2 minutes to copy a standard disk.

While copying a disk, the program will show the track it is currently on, the number of sectors on the track, types of bad sectors (CRC errors, bad data marks, etc...), and if more than 18 sectors are used, it will also print "restructured sector map" for the track. It supplies plenty of information to inform the user as to the type of protection he is up against.

The program does not appear to be particularly well written and I've noticed a bug or 12 in it. Error trapping is poor, at best. For instance, if you have loaded your destination disk, and you forgot to notch it or had a write protect enabled, the program will lock-up. Solution? Start over! The program has no built-in maximum number of sectors it can write to a track. If the program encounters a 21 or more sector track, it will say "Need Rev. 3", but will still format the track and write the data, but not correctly. The most sectors it can actually lay down in a track is 20.

Many a time, and especially with a popular baseball program disk using a 19-sector format, the program will come to the protected segment on the last track, and print "restructured sector map" forever, as it goes off into never-never land, without, naturally, completing a copy of your disk.

My last comment on the software concerns just a little thing I happened to notice.

Though I feel the software is less than well-written, I could be forgiving if it was new, written in a hurry and released merely to fill a void until Rev. 3 could get out. This does not appear to be the case. Though the program specifies a 1985 copyright, the original copyright was 1983. That tells me that plenty of time was available to eliminate the obvious bugs that do not have much to do with the copy capabilities, themselves -- such as basic error trapping, etc.

The Duplicating Technologies people have promised a Revision 3, a revision that supposedly will copy anything on the market today. The product's handbook says I should "be receiving this within 30 days", but it has been well over 30 days, and, as expected, I have no revision. I'm also quite certain they didn't print their handbook the day before I ordered my Duplicator, so I'm sure there are folks who have been waiting for this revision much longer than I. My personal opinion is that Rev. 3 software should be more aptly named Rev. 3 vaporware. I'll believe it when I see it.

Hi-Speed Read and Write Operation

The chip dramatically reduces the time to load a disk. I estimate about 1/3 to 1/4 the normal load time would be accurate. The Duplicator employs a method of reading a track they call "whole track buffering". This is a fast way of reading a track and will drastically reduce the wear and tear on your drive. A normal, stock drive will read 2 sectors per revolution of the disk, using a standard format. So, it will take 9 revolutions to read your track. The Duplicator, as does the Happy and the Archiver, reads the entire track in 1.05 revolutions of the disk, and feeds the data to a RAM buffer on the chip. It is then fed to the computer from the buffer, instead of the disk. (RAM on board for the Duplicator is 4K, 8K for the Happy.) The Happy is able to transfer this data buffer much faster than the Duplicator, but the Duplicator still affords a very impressive cut in load time.

The Duplicator claims to be able to read all your software at the hi-speed rate. This is not true if it is a commercial software item protected with some sort of double sectoring. I will not go into any detail here, but any drive that employs this fast read method technically is incapable of correctly reading a double sector, so, even though it may be an original disk, it still will not run correctly. Though many people blame the software publisher 'cause their products cannot be loaded in an enhanced drive's fast mode, it is actually the enhancement's fault. I have also frequently encountered boot errors when attempting to load some commercial software even though not Protected with double-sectoring. This will sometimes require the drive to be turned on/off several times to get a good boot. This, however, may be a problem with my drive, and, anyway, is not much of a drawback. (Note: Duplicating Technologies sells a plug-in drive chip that allows the

hi-speed read/write operation. It also gives your drive a true double density capability. This chip goes for \$59.95.)

DOS

On the back of the copy program is a true double density DOS which, I believe, is a modified version of DOS 2.0. A benchmark I use to test for DOS 2.0 is to load up your DOS, insert a copy of "F-15 Strike Eagle", and load "Autorun.Sys" using the "L" command. I have previously found that this works only with DOS 2.0. It also works with the DOS supplied with the Duplicator. This version is superior to DOS 2.0 and 2.5 in several ways. In addition to the choices usually seen on the menu, some others include the ability to toggle your write with verify on/off, a single to double density/single drive conversion option, and change drive(s) configuration option. All at the touch of a key! You DOSXL users, imagine configuring any drive, or converting between densities using a single drive without loading up a program to get there! Another option I like is the Duplicate File option. If you tried to duplicate all files with the extension of, say, ".TXT", and there were 10 of them, you would not have to swap disks after each file is read. Instead, Duplicator's DOS will read all the files it can into available memory before asking you to swap disks, then write them all out. Quite a time and motion saver. As mentioned above, there is an rpm test program that will check your drive speed, deprogram or reprogram your drive, and assorted other goodies.

Documentation

The documentation included was adequate enough. They went to great lengths, complete with diagrams, to describe the proper installation procedure. Duplicating Technologies also stressed, repeatedly, their assurances that updates for any and all protection schemes would be quickly written and distributed for a modest \$5.00 charge. One quirk. After stressing how quickly the updates would be written and released, they went on to knock Happy Computers for their way of selling Rev. 7, without actually having the product to distribute. I agree with them. However, Duplicating Technologies is doing the same thing with their Rev 3., and is not forewarning buyers that such an update is needed -- and needed now!

Summation

First of all, let me say I am withholding final judgment on this product until (and if) I get my hands on Rev. 3, and thoroughly examine it. But, based upon the product as it now stands, I wouldn't recommend its purchase at even half of the current asking price, which is outrageous to begin with. I am sorry to say it, but as it now stands, I think this is a terrible product. Duplicating Technologies merely seems to be trying to make hay with the many Atari fans growing impatient with the long wait for Happy's Rev. 7. Despite the problem

Happy is having with this revision, their product is otherwise well worth the current price tag of \$149.95. Happy can lift up and slap down ANY 19 or less sector format on the market, something the Duplicator has proved incapable of even coming close to. And when the Happy says its drive when deprogrammed is not detectable, believe me, it is. Many an hour I have spent trying to detect it in this mode, to no avail.

Some readers may think I am being overly critical in this review. But for now, the Duplicator's programming bugs, its very severe detectability problems, inferior backup capabilities, and less than accurate advertising claims should make potential buyers look elsewhere.

Anybody with opinions, comments, or experiences with the Duplicator, or comments on my review, may write to me at the address below. I am especially interested in experiences with the Duplicator. I may also be able to answer some of your questions on both the Happy and the Duplicator.

Rick Holtzhauer
NEESA
Port Hueneme, CA 93043

=====

TIPS 'N' TRAPS

=====

by Jim Stevenson and Barry Burke

MINDSHADOW

Welcome to Tips 'N' Traps number 16. This month we decided to do something just a little different. Barry Burke has done a review for Activision's graphic adventure, MINDSHADOW. Next month we will return to the regular Tips 'N' Traps format.

MINDSHADOW is a text/graphic adventure available for both the 8-bit and ST lines of computers. The object of this particular adventure is to get off of a deserted island and regain your identity. This objective sounds much harder than it actually is. On a scale from 1 to 10 for difficulty, I'd give MINDSHADOW a 3. Don't let this low difficulty rating sway you too much. It is just my opinion based on comparisons with many other games I have played. New adventurers may give it an 11; it differs with experience.

The setting of this adventure is on a deserted (then where did that hut come from?) island. You got there by a shipwreck. There are many puzzles to solve and although most are pretty easy, some are complicated.

Although the 8-bit and ST versions are essentially the same, the ST version has a few advantages. Every time you visit a new location, the picture for that particular scene must be loaded in (unless you have toggled the text only option by pressing RETURN at the main prompt). Here is where plunking down the \$\$\$ for the ST comes in handy. On the ST, once a picture has been loaded in, the picture is stored in memory and therefore doesn't have to be re-loaded when you visit the same location.

Another advantage in the ST version is the option of using the mouse for input. Confused? Well, that simply means that you can take some of the hassle out of adventuring. Let me explain to you how the screen is set up first and then maybe you will understand this concept a little better. In the 8-bit version, the screen is split into two parts. The top part of the screen contains the picture and there are about 4 lines for text at the bottom (much like a graphics 7 1/2 (Antic mode E) screen with the text window at the bottom).

The screen in the ST version has three parts. (Can you figure out what those three parts are boys and girls?) Well, in case you can't, they are: the graphics section, the text section, and the mouse section. Picture this: the layout of the 8-bit screen with the graphics screen cut in half and the graphics on the left half and the mouse section on the right. Ok, now what is the mouse section used for you ask. Well, the mouse section is made up of a list of some commonly used verbs on the left hand side and a list of some common nouns on the right which when clicked on, pop into the command input line and execute after you click on or type return. There is also a compass on the bottom which makes moving around alot easier. Another feature of the ST version is the on-line tutorial which is very informative and would be a great help to anyone new to adventuring.

All in all, I think MINDSHADOW is a pretty good adventure. It combines nice graphics, a good parser and a fairly entertaining plot. Although it was pretty easy to solve (for me), I think it would make a good first adventure for anyone just getting into them. To you experienced adventurers, I'd recommend waiting for something a little harder to solve.

Til next month, so-long.....

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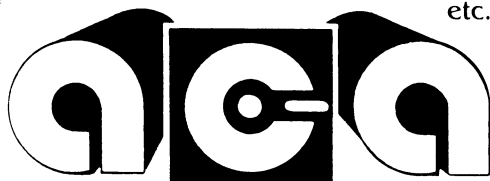
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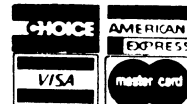


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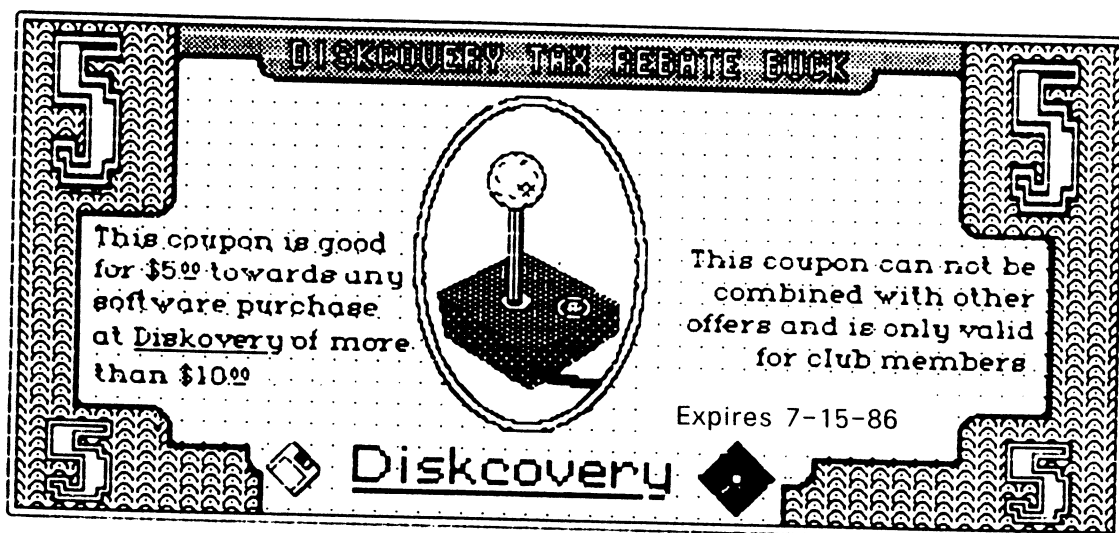
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- #15: ATARI'S ST WRITER, Version 1.0.
- #16: COLOR SLIDE SHOW NO. 4.
- #17: COLOR SLIDE SHOW NO. 5.
- #18: ST UTILITY PROGRAMS No. 1.
- #19: XLISP - object oriented language.
- #20: COLOR/MONO SLIDE SHOW.
- #21: ST GAME DISK No. 1. (MEGAROIDs, MASTERMIND, OTHELLO, BACKGAMMON, RIPCORN, TARGET, LIFE, and JORNEY).
- #22: SAMPLE BASIC PROGRAMS. (BOXES, ELLIPS, JOURNE, LABELS, RINGS, STAR, TEXTIFF, TITLE, CHECK, TESSER, SNDTEST, WAVEFORM, WAYER).
- #23: INSOFT MAGAZINE, JAN. 1986. (Variety of sound and graphics programs.)
- #24: MONOCHROME SLIDE SHOW NO. 2. (APPLE, BROOKE, CHRISTI, MORGAN, HUNGER, TAKEON, NATURE, MOUNTAIN, JDXMAS, XMASCY)
- #25: DEGAS UTILITY DISK. 24 fonts along with a dozen various printer drivers and programs to convert DEGAS to NEOCHROME and Koalapad pictures to DEGAS.
- #26: MONOCHROME SLIDE SHOW NO. 3. (BEAGLE, BUNNY, PERSIAN, POLARBEAR, WETLIME, CAD3D, CHESS1, COWBOY, MOUSE).
- #27: dBMAN DEMO DISK. Powerful database system marketed by Versasoft. Demo disk is entire program, but limited to 30 records maximum. Use with Tutorial Disk (below) to learn and

evaluate program.

- #28: dBMAN TUTORIAL and MAILING LIST. Tutorial to teach you dBMAN. Includes complete mailing list program.
- #29: MICROEMACS. A public domain version of the MicroEMACS editor program. Disks includes this powerful editor, a reference manual, and shorter command summary files.
- #30: UTILITY DISK #2. Includes an assembler, another command processor, disk copiers, FORTH-83 (as distributed by the San Leandro Computer Club), PrintDIR and TimeDate, disk labels program version 2, set display colors, convert pictures from other computers, squeeze/unsqueeze files, and change volume name of a disk.
- #31: PASCAL & MODULA-2. PASCAL: (all the files provided by OSS as of 4/18/86, and 8 demo programs). MODULA2: (source code and compiled program for the Modula-2 GEM DEMO, 4 files to provide BIOS and XBIOS functions, the VT52 emulator escapes and 11 MUDOLA-2 files not yet tested on the ST)
- #32: Sound and Graphics Demos. pianok.prg, sound.prg, zarath.prg, digitize, demo of swimming goldfish, Mickey Mouse head as pointer, Star Raiders demo, popcorn.prg.
- #33: Sample C Programs No. 2. cc, digit, fixed, debug, qio, pi3con, printdir, ramfree, sound, ttool, vdisamp, windtst and more...
- #34: Music on Your ST. Preview of the ST MUSIC BOX coming from Xlent and Deluxe Piano Player -- a super public domain Musical Toy.
- #35: Atari ST Demo Disk. This demo highlights the key features of the Atari ST and its peripherals. Produced by Audio Lite, it shows off the Atari's sound and graphics capabilities.
- #36: Desk Accessories. Almost two dozen different desk accesories including a TI-59 calculator, calendar, ramdisk, free ram, screen snapshot, background colors, sector editor, games and more. Disk includes John DeMar's ST Tips.
- #37: Game Disk No. 2 BASIC Games (Scratch, Switchbox, Bomber), Celestial Caesars, Score4, Battleship, Blackjack, Mad Libs, Maze Maker, and more.
- #38: INSOFT MAGAZINE, Jun. 1986. (Latest Atari News, C source code for grep function, dump DEGAS file to Gemini 10x, address & mailing list program and more...)

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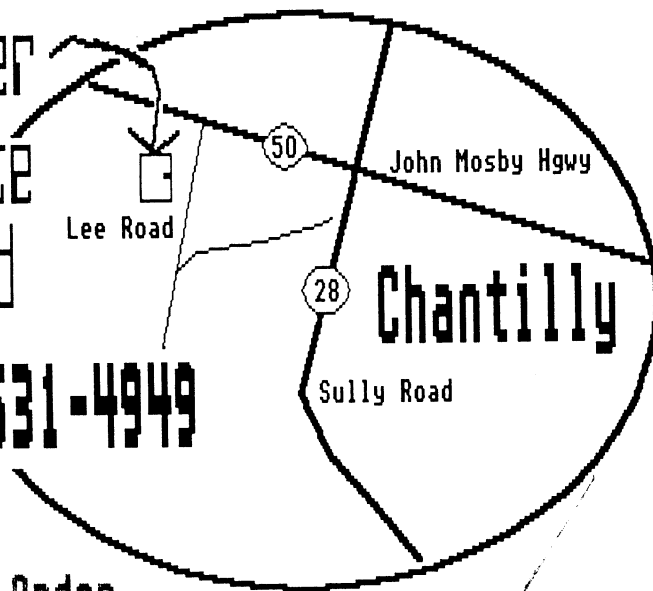
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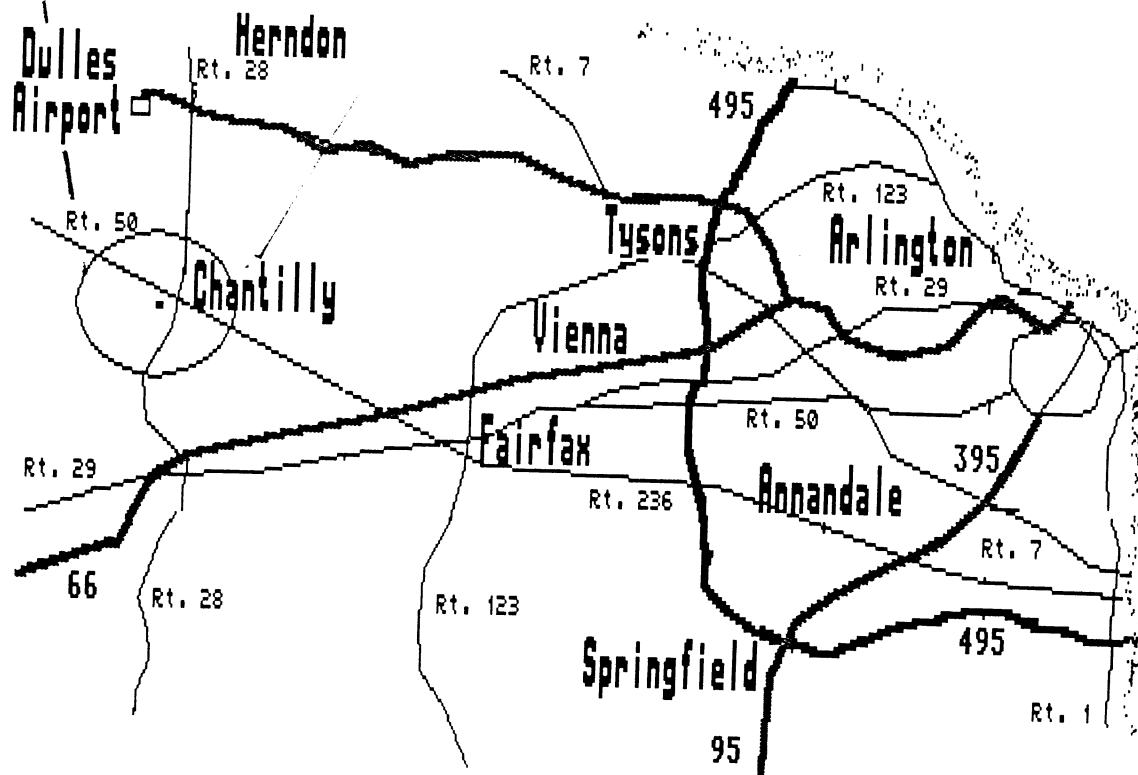
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ST UPDATE

=====

by Joe Waters and Frank Sommers

HARDWARE NEWS. Atari has several thousand of the longawaited hard disk drives piling up in warehouses. Target shipping date is still the end of May so the drives should be in stores by the time you are reading this. We'll see.

Expect to see the Atari 1200 baud modem late in June or early July. Our sources indicate that the MS-DOS emulator has received FCC approval. The hardware seems to be in fine shape, but the software still needs tuning. Probably won't see this until the fall. The situation with the blitter chip is just the opposite. Software emulation of the blitter is done but bugs still remain in the hardware. If the chip makes it through the next production run, we might see this product in four to six weeks. No significant progress to report on the CD-ROM front. Atari still talking with potential suppliers.

A new monitor is on the way, the SPI3000. This will be the same as the current color monitor with one significant difference -- a built in disk drive. Final price is not set but should be in the neighborhood of \$500. The EST, the next generation ST, will feature a very high-resolution monitor (1280 x 960?). However, monitors with this kind of resolution, currently priced at about \$1,000, are very expensive. Atari is searching the world to see if it can find a supplier who can make a more economical high resolution monitor. Don't look for the EST before, at best, early next year.

Hard drives, MS-DOS emulators, networks, color digitizers and other potential peripherals are all going to need access to the single DMA port. How are they going to get it? By using an OctaBUS. This device will plug into the DMA port on one end and provide four (or eight) additional DMA ports on the other end. Several 3rd-party manufacturers are working on such a product right now. Price will probably be between \$100-\$150.

SOFTWARE NEWS. Artists are certainly getting some nice tools for use with the ST. First we had NEOCHROME followed shortly thereafter by DEGAS. Audio Light has entered the fray with a terrific new product called N-VISION. Soon, two more products will be available. DEGAS ELITE will be a major upgrade to DEGAS and Atari will release NEOCHROME Version 1.1 in June. The new version of NEOCHROME will be priced around \$50 and include several enhancements such as ellipses and arcs and multiple fonts (with the ability to rotate and size characters).

Atari really liked the database management program dBMAN offered by VersaSoft. In fact, they liked it so much they purchased

the rights to the program from VersaSoft. Now, Atari will be marketing this popular database package.

If you are anxiously waiting for Personal Prolog from OSS, you'll have to wait awhile longer. The first release of Personal Prolog will be OSS's first product for the MacIntosh. The ST version won't be ready till the end of the summer. OSS also informs me that they have dropped plans to produce Personal Diskit -- there were already too many programs around performing similar functions.

COMDEX. I recently attended the spring edition of COMDEX (Computer Dealer's Expo) held in Atlanta. Atari once more followed the formula devised by Sig Hartman at the November COMDEX. By providing ST software developers with floor space within the large Atari display, Atari was able to effectively demonstrate the great variety of software available while at the same time helping those who are developing programs for the ST. And programs there were! Atari released a 350-page paperback book listing about 300 programs available (or soon to be available) for the ST produced by nearly 100 different companies.

Faced with such a volume of software, I didn't attempt to examine in detail every program being displayed. Indeed, it would be difficult here to even just list the names of the programs. So let me just hit upon some highlights.

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The ST has plenty of languages. Already programmers of BASIC, C, PASCAL, FORTH, or ASSEMBLY have several competitors to choose from. FORTRAN programmers will be happy to know Prospero has released Pro Fortran/77 and MODULA-2 fans will soon have an upgrade from TDI for their language. Accounting has now made it to the ST. DAC Easy -- a popular, and inexpensive, accounting package from the IBM PC world -- is now available on the ST. Sierra's One Write series will provide some more sophisticated accounting modules thoroughly integrated with GEM. Several "SideKick" clones were shown; these programs provide a number of simple but useful functions that pop up on demand when needed. BI had a "Lightning" clone called, aptly enough, "Thunder." I really like this one. It was a real-time spelling checker -- it would catch your typos or spelling errors as you typed.

OS 9, a multi-user, multi-tasking operating system, was up and running on the ST. I noticed the OS-9 booth had a copy of Volks-Writer for the ST. No, this popular word-processor from the IBM PC world has not been ported over to the ST, but there is a version that runs under OS 9. Speaking of operating systems, the CP/M emulator was on display as was the MS-DOS emulator. Unfortunately, in the case of the MS-DOS emulator, the only program available and being demonstrated was MultiPlan. But imagine what happens to the quantity of available ST software when you add the existing CPM, OS 9, and MS-DOS

libraries. We won't even try to imagine what would happen if the Mac-emulator ever gets off the ground!

There was much more on display that we will try and tell you about as the products are actually released and come onto the market. There is one new product, however, that I think you should be warned about. It is a game called "Cards" from MichTron. It includes five individual games (BlackJack, Cribbage, Poker Squares, Klondike, and Solitaire). If you are into card games, stay away from this one! It will capture you and steal every free moment you have. Instead of going to sleep, you'll find yourself booting this one up for "just one game." But don't believe it! You're liable to go weeks without ever getting a full night's sleep. Look for a more detailed review next month.

TINY THRILLERS. We seek to generate both an audience and an authorship for "tender tips" or as we call them, "Tiny Thrillers" about the mighty-mite ST electronic space craft. This is not to usurp John Demar of QMI, PO Box 179, Liverpool, NY, who has done a piece available on the BBS circuit. Rather this is because of John. We would like to stimulate local courage in transmitting your creative discoveries about the care and feeding of the ST to local users, and also, if you wish, to John per the address above. He whets our appetite with a number of "insights" on "how to", e.g. when you wish to read the directory of a disk you have just replaced in the drive, without

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"mousing it", just hit [Esc] and the new directory will flow in over the old. (If you have "desktopped" so that you have two windows with both drives on the screen sized to your needs, click on the one you wish to refresh and then hit [Esc]. That from John Demar, now to encourage your local participation, these two "Tiny Thrillers" from CN correspondents.

SELECTION WINDOWS: How often have you tried to switch directories in the Selection Window of a program, and after typing in on the Selection line, "B:*.*" or A:, as the case may be, you click and watch the new directory flash on, and flash just as quickly off the screen? A "Tiny Thriller", instead of clicking on O.K. or pressing return, click on one of the programs in the old menu, and watch the new drive contents slip into place and stay there.

BLOCK FILE COPY: Power, at any price, (once you have your ST), is reaching up and pulling down a dotted line with the mouse to the left of a window of files, watch them black out, and then drag them over to copy to another disk or drive or whatever you wish, e.g. folder. To do it without having to later go back and "trash" those files which were in the block and which you didn't really want but couldn't avoid, first, draw down your block of desired files to copy, but stop at the one you don't want. Then reposition the cursor at the next desired item and holding down the [Shift] and [Alternate] keys, simultaneously, press the [Insert] key,

but deftly. Voila! The file blackens and you proceed to repeat the magic with any other files to be dragged smilingly to their new home.

Now, many of you know these tricks. Most of you do not. We didn't. So please don't assume that your "discoveries" are known to all. We have discovered the opposite is usually true. Please, therefore, drop them off in writing (to Frank Sommers, 4824 Langdrum Lane, Chevy Chase, Md 20815) or electronically on the new local ST BBS, or by telephone. We'd love to give credit where credit is due, so please leave your name and general location to be included with the "Tiny Thriller". MAC WORLD, the Mac mag, runs such items monthly as a separate article, and interest is high. The guideline, might be, "All You Wanted to Know about ST, and Nobody to Tell You".

ARMUDIC-ST. The new WAACE ST BBS (703) 569-3227 is now a reality. The download files (two DSDD drives) are already full and the message base is growing daily. Hopefully, when the hard drives are released, we will be able to upgrade and have 20 megabytes available for the Atari community. A subscription fee (\$15/year for all WAACE members, i.e. anyone who gets this newsletter through their club or via a direct subscription) will get you up and running. To register, send your check (payable to NOVATARI) to Ted Bell, 9705 Shipwright Dr., Burke. VA 22015.

SWITCHBOARD. We recently received the SWITCHBOARD BBS from SST Systems (\$34.95), and asked Ed Seward to take a quick look so we could tell you something about it in this issue. Ed's report:

This unusual BBS software is set up as a ten-story building with up to 100 rooms per floor. This type of structure allows for a variety of privilege authorizations. The latest version for the ST, version 3.1, allows up to 256 accounts and 256 messages or pieces of Email.

The manual or Sysop mode contains the following commands:

- S - (S)earch for pending messages or accounts
- M - (M)odify messages and accounts
- D - (D)elete messages and accounts
- N - enter a (N)ew message
- B - go (B)ack to the BBS program
- E - (E)xit SWITCHBOARD

The program disk is not copy protected allowing one to use a backup copy for safety. The program disk contains CONFIG.TOS and EXPAND.TOS to initially configure the BBS and to later expand it.

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BORROWED TIME

Reviewed by Joe Kuffner

Borrowed Time, from Activision, Inc., is an illustrated text adventure for the Atari ST computer. But, don't let that description fool you. The graphic screens in this imaginative 1930's detective thriller are superb. In addition to being a text interactive adventure game, colorful enhancements fill the screen with each scene location. Each picture is filled with hints and objects to assist you in preventing a murder -- yours!

You're Sam Harlow, private eye. The setting, 1934 Anywhere, USA. Your mission: "... Investigate your way through a web of seedy characters in a blood-thick plot.", according to the concise, but clear instruction manual provided in the attractive packaging for Borrowed Time. "You must discover who is trying to murder you, collect the necessary evidence and bring it to the police." But, be warned -- you'll spend a great deal of time being killed (which is the norm in adventuring), so save your position often. You save your games on the second of the two program disks. That's right, two disks full of adventuring fun. However, two disk drives are not required. You actually will only use the first disk to boot the game program, and play the opening sequences or, if you wish, have a brief tutorial on how to play an adventure type game.

Borrowed Time uses many of the features of our Atari ST computers. As previously mentioned, color graphics, with the addition of small amounts of animation (dog wagging its tail, an elderly woman knitting, a policeman writing, etc.); mouse-controlled interaction (both text and graphic interaction!); and of course, keyboard commands including the use of function keys.

This adventure I would rank somewhere between easy and medium in difficulty. Difficulty is not established due to complex situations, but because of the requirement to read the text provided (and to read between the lines), and to interpret what you see in each of the scenes. Graphics are an essential part of the solving process of this adventure. As an example, in the early stages of your investigation, you will find yourself in an alley, only to be "told" by the text, that exits lie to the east (from where you've come) and to the north where there are menacing thugs with guns drawn. In a text-only adventure your next move would likely be to either fight it out or return from whence you came. Because of the graphic nature of this game, you may do either of those or take advantage of other clues presented. You see a hotel sign in the distance and you might try "Run to the Hotel", and of course that's where the adventure will take you. And, because this is an adventure, your troubles won't stop there, but at least you're out of one more jam and are ready to tackle the next.

You'll also find it necessary to keep a very detailed map of the city and to look at everything, even the garbage lying in the street! Because you are an investigator -- no stone must be left unturned, no person is too insignificant for you to pass up an opportunity for an interrogation. Many of the things you'll find out are witty and downright funny, except if you hang around any area too long or ask too many wrong questions. For, most certainly you will be removed from the case, permanently. As usual, for those of you who get stumped through the course of your investigation, Activision offers a hint book, for only one dollar to cover the cost of shipping and handling.

The game's parser is somewhat limited in vocabulary and in its ability to handle complex sentence structure. But this isn't so bad. The verb-noun combination is a natural form of communication, and the parser will understand if you wish to add prepositions and adjectives, but don't be too tricky or you'll get the usual response, "I don't understand that...". On the positive side is the ability to chain several commands together (i.e. N.W.W. Get glass. etc.) with the use of a period. I found this very useful while retracing my path on many occasions, after feeling that burning sensation in my chest (to coin a common phrase from this adventure).

However, if you do not wish to type all your commands, the program offers a mouse-selectable menu of common verbs and nouns and compass directions. Also, of unique character is the ability to pick up and drop objects simply by pointing and clicking the mouse on the objects on the screen. A pleasant corollary of this feature is that that your inventory is displayed on the screen and can be manipulated in many ways with the mouse.

While wandering the streets and visiting attractions (Post Office, Hot Dog Stand, Bars etc.), I found that I didn't use the mouse-controlled features very much. Probably because I'm used to playing text only adventures. But what is extraordinary is the use of the function keys for commonly used expressions like "Tell me about...", or "Quicksave" and the use of the arrow keys for directions (left arrow for west, etc.). These time saving features allow the game player to spend more time playing than typing. A nice touch. One can't help but notice the attention to detail that Activision's program team demonstrates in Borrowed Time. From labelling on pill bottles to the motioning to sit down by a finger, this is truly a classy program. Its fun to play a game where you so obviously get value for your software dollar.

I thoroughly enjoyed playing this adventure and suspect that most home adventure libraries would be incomplete without this one. Value, originality, playability and attention to detail earns Borrowed Time a good rating in my book.

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GOING ONLINE

by Ed Seward

QMI 1200ST Modem

A few weeks ago I finally got tired of using an el cheapo 300 baud modem. The price for this Hayes-compatible modem and software (ST-Talk, Version 1.1) along with the amount of time I spend online, convinced me to buy this package.

What You Get

When you open the package, you will find the following: the modem itself, the power supply, cable for the RS232 port, a disk, some documentation and a Compuserve Introductory package. The only documentation for the modem is on the disk itself and covers one and a half pages when printed out. I find it hard to believe that the modem's manufacturer would supply such a dirth of information.

The documentation with the modem covers: the eight LEDs and three buttons on the front of the modem; the pin configuration for cable connections if you want to make another cable; and the purpose of the eight DIP switches on the back of the modem. The info supplied on the switches is:

OPTION SWITCHES		
OFF (UP)	ON (DOWN)	FUNCTION
1 8 bits	7 bits	bits/char
2 RDL inactive	RDL active	Rem. Digital Loop test
3 DL inactive	DL active	Digital Loop test
4 no self test	self test	self test mode
5 AL inactive	AL active	Analog Loop test
6 DTR active	DTR override	Data Terminal Ready
7 CD active	CD override	Carrier Detect
8 CTS active	CTS override	Clear To Send

The file also lists the supported commands:

COMMAND	DESCRIPTION
AT	Attention
ATD	Dial a telephone number
ATP	Switch to pulse dialing
ATT	Switch to tone dialing
ATA	Answer in the answer mode
ATO	Answer in the originate mode
ATZ	Reset the modem
ATAA	Enable Auto-Answer mode (default)
ATAD	Disable Auto-Answer mode
A/	Redial last number (DO NOT hit RETURN)

Use a comma for a four second pause in the dialing sequence

At this time the length of the command string is limited to 20 characters. I'm one of those still using Ma Bell for long distance calls so I don't need to worry about the above limit. If you need to dial a

number to access MCI, Sprint, etc., then keep the above limit in mind. One last thing on the features of the modem, it doesn't have a speaker. I haven't had a speaker on a modem for the last year so I don't miss it, but some people do like to have them.

Don't let my opinion on the shortage of documentation on the modem itself make you leary of this package. The modem documentation is sufficient to use the modem and contains more information than most people will need. On the other hand, I must confess that I found the program documentation just right. The command descriptions are short but concise.

Using the Modem

Well, I've described what's in the package. But how well does it work? After hooking the modem up to the system, I just had to try 1200 baud. (For two and a half years I've had only 300 baud.) As anxious as I was, I didn't even take the time to set up the autodial directory built into ST-Talk, the software package supplied with the program. I just followed the instructions to dial through from the terminal mode. It was nice and easy. After accessing a few BBSs that way, I figured I better take care of the autodial directory. The directory provides for the autodialing of 26 telephone numbers. Besides saving the phone number, the program also saves the baud rate setting in effect when you make a directory entry. When viewing the directory, you see the 26 system names along with their telephone numbers.

Note that the modem must be set for the same baud rate as that as the program, otherwise nothing happens when dialing. I have heard occasional comments about the modem sometimes not dialing from the autodial directory. I had this problem once in awhile too -- until I took the time to verify all the baud settings in the directory. I redid all the entries that had an incorrect baud setting. Since doing that, I have had NO problems with the directory and I have used the autodial feature a lot since that time.

Ramdisk Support & DOS Functions

I have uploaded and downloaded using a 158k ramdisk on my 512k machine. The ST-Talk disk comes with a self-installing ramdisk that sets itself up for 360k on a one-meg machine and 60k on a 512k machine. To list the directory of the ramdisk, you use the pathname command, "P", from the QuickDOS menu and enter "D:*.*". The directories of the floppies can be displayed by entering just "A" or "B" at the QuickDOS prompt.

QuickDOS is accessed from terminal mode by hitting "Alt-Q". Provided are the three commands mentioned above - A, B and P. Also available is "D" for delete a file and "R" to rename a file. The directory listings give the filenames and the remaining free disk space. It would be nice to also know each file's size.

General

As is fairly common among terminal programs on the ST, ST-Talk emulates a VT-52 terminal. ST-Talk also handles a lot of the Atari/Atascii translation in an 8-bit terminal emulation. The 'Help' key brings up the Function menu as a separate screen so that you hasn't lost anything when they return to the terminal mode. The standard functions are provided: capture toggling on and off, text uploading, XMODEM file transfers and toggle the printer on and off. Another nice feature is the use of the bell to signal the completion of a file transfer.

In my various uses of ST-Talk I have used the VT52 emulator and ATASCII translation. I had no problems with either one -- note that the ATASCII simulation doesn't include the ATASCII graphics characters. I've also used the XMODEM to upload and download to a 8-bit Atari BBS, Compuserve and to transfer files between the ST and my 800 using a 1030 modem on the 800. Again, ST-Talk and the QMI 1200ST (Avatex 1200) worked without a hitch even when Compuserve was busy; which can sometimes cause problems with other software.

The Problems

In using ST-Talk I ran into several problems. First, when trying to upload a file that doesn't exist (say misspell a filename or forget to specify drive B), the program let's you know it couldn't find the file and then proceeds to hang the system. Second, when trying to capture, receive, or write to a write-protected disk, although you get the appropriate dialog box, the system nonetheless hangs up. True, these are caused by user errors but could be handled by a little more error trapping. (My fingers and mind aren't so nimble at 1:30 in the morning.)

Some Added Facts

Having heard the rumor about the Avatex 1200, QMI 1200ST and Supra 1200ST modems, I got curious. The serial number plate on my QMI 1200ST says Avatex 1200 as does the faceplate of the modem -- under the QMI 1200ST sticker. (I have seen the Avatex 1200 modem documentation and that is why I feel so aggravated about the QMI modem's paucity of modem documentation.) Yes, you can get the Avatex 1200 for quite a bit less than the QMI 1200ST package. However, the Avatex package does not include the RS232 cable nor any software. Make sure to figure those items in when shopping around. Some people new to computers or tele-computing may prefer to go with a complete, simple working package.

Making a Decision

The Avatex 1200 (QMI 1200ST) is a good 300/1200 baud modem at a great price. If you have to watch your expenses, then this modem is what I recommend.

The software, ST-Talk, is a good reliable

introductory terminal program. It is also good for those that aren't sure what they really want in their terminal software. The 'feel' of ST-Talk is very good and with the exceptions I mentioned -- trouble free. It's easy to use and for the price, less than \$20 by itself, a real bargain.

For those of you that spend a great deal of time tele-computing or just like to have those little extra features; then ST-Talk might not be for you or me. I've gotten use to having a lot of features on the 'old' 8-bit machines. Next month I'll provide CURRENT NOTES readers with a detailed comparison of available ST terminal programs.

Atari to Put MSDOS on PC

The May 19 issue of Computer + Software News reported that Atari is in the final stages of signing an OEM agreement with Microsoft which will allow Atari to offer DOS capability on its ST. The deal is said to include Microsoft's PC-DOS 2.25 and GW Basic, both of which will become available for the ST with the introduction of the PC emulation product.

PRINTMASTER

(Continued from page 35)

buy that your printer is on the list of printer drivers. That, however, is one of the advantages of buying a program that has already been around the block a time or two. You aren't stuck with just one driver and a promise of more to follow. PrintMaster has more than a dozen printer drivers already built in. Unison World also provides a troubleshooting paper as another insert, suggesting printer drivers for printers not specifically listed. Also, I found the technical support personnel at Unison World very helpful when I found I had an incompatibility problem with the suggested printer driver for my NEC Pinwriter.

There was also a curious slip of paper in the box which advertised a backup copy of PrintMaster for \$5.00. As far as I can tell, the program isn't copy protected so I'll admit to being a little mystified at the offer.

The bottom line: PrintMaster is a superior graphics program as long as you understand the purpose for which it was designed. It won't help you become a graphic artist in the manner of Degas and Neochrome, but within the constraints of the program it's very flexible and so easy to use you won't have to spend more than a few minutes with the manual. Compared to other graphic programs of its type, PrintMaster is superior and a very good value for the money. And it's fun -- and in the world of microcomputing that's usually what it's all about.

HIPPO CONCEPT

- An Outline Program -

Reviewed by Frank Sommers

Market analysts of computer software sales predict the big numbers for the next year will go to outlining programs used in tandem with word processors. "Outlining program?" you ask. Yes, that genie you put into your electronic bottle, then blithely pour your ideas into it, and at the touch of a key, it flows back out onto your computer screen in incredibly organized and brilliantly crafted prose. You begin by creating a simple outline of your random thoughts on a topic. The outlining program allows you to add sub-paragraphs and sub-sub-paragraphs, expanding each, switching, changing, and filling in with flesh until your idea is a finished paper, article, work project or monthly report for your boss. You can see the overall outline, or zoom in on the particular. Ostensibly, a tool of joy and beauty!

Many of us, in fact, have just been toying with our ST's, saving our articles, and stories, and innovative office memoranda, and great American novels for the moment when the ST would have it's own "Think Tank 512", Macintosh's answer for the brain that can't think straight. This reviewer almost defected to Apple's Mac so hypnotized was he with the revised version of their mighty Think Tank by Living Videotext, only to be saved at the ultimate moment by Atari's clarion call that the ST was coming.

Come it did! And now finally so has Hippo Software with HIPPO CONCEPT, the first outlining program ST users can slick into their drives, boot up, and blaze away with. Is it a mind saver? Or is it a mind bender?

Your first impressions may be misleading. The program comes in Hippo's new package for their professional software line, a full size, 5 x 7, attractive box. The size of the 25-page booklet of documentation is a pleasing change from the folded hankie-size Hippo briefs of yesterday. However, the first reading leaves you uncertain about terminology, and feeling that this new idea for outlining ideas comes not quickly to the slow of wit. In place of "paragraph" they slip in the word "node", and "sub-paragraphs" become "dependent nodes", and non-subparagraphs are sibling nodes. The concept of HIPPO CONCEPT takes up the first 16 pages of documentation, half of which tells you how to load and install the program, and half treating the pull down windows and function key commands. Then there is a 3-page tutorial, which in effect tells you to create an outline, save it, load it again, and most usefully how to move a node around within your outline. An appendix, repeating the commands, and providing an ASCII Table and font file section on how to load fonts for color or monochrome monitors completes the 25 pages.

The conceptual section has four diagrams, relying on the family-tree theme to depict switching nodes and networks (a self-contained group of nodes), up or down or over and across in your outline. Get the picture?

Well, I almost cried when I didn't. "There goes my Pulitzer," I thought, "How can you write a book you can't even outline?" So I undertook several more readings. Explanations such as, "Using the Shift key with the Left arrow key moves the node up one level, causing the node to become a sibling of the node which was its parent. When a node is moved using any of these commands, all of its children and descendants move with it", while concise and precise, left me no wiser or cheerier about my literary future. Final I shouted to myself, "Do it! Just do it!"

So, I started.

"I INTERNATIONAL STRATEGIC INITIATIVES

A. Star Wars

1. March of Folly

b. meaning of 'wooden headedness'

2. Fuel for Arms Race?

a. Cheaper? Cruise Missiles or Orbiting Lazer Reflectors"

It went rather slowly, because of my lack of mastery of the commands. I clung to the conviction that a many layered outline should explode from a clutter of rough ideas and items. After you have entered, moved, cut and pasted, and expanded selected paragraphs, with substantial text, the whole might be printed out as a finished report. Indeed, I feared I had expected too much.

I tried expanding the outline above. (I suggest working with something of interest to you, to encourage your involvement.) Then I went to the printer to risk a printout. With a clash and a clatter, there before your doubting eyes is a neat little outline, richly indented, with or without numeral or alphabetical indents as you choose, but an outline indeed. Encouraged, you go back to mastering the commands, including the art of zooming in and out of your outline, and shifting paragraphs around. [F6] and [F7] function keys are used to descend or ascend within your outline or you have the option of using the [Insert] key and [Shift Insert] to do the same thing.

Placing the cursor on "I INTERNATIONAL STRATEGIC INITIATIVES" and pressing [Insert], causes your screen to blink to "A. Star Wars". And if those words are in bold type, you know that behind that screen is yet another with a sub-paragraph. Clicking [F6] or [Insert] and you dip deeper (you can go down as many levels or sub-paragraphs as you need to). Then you can swim back to the surface by clicking on Ascend in the pull down Edit menu, or via [Shift Insert] or [F7].

Once into the outline, the higher levels are no longer visible and you sense a bit of

claustrophobia. The program compensates for that in two ways. At the top of the screen is a line indicating your depth in the outline, and giving the first words of each heading. Then there is the ESC key function! This bit of beauty instantly expands your outline for a full screen or up to three levels which ever comes first. It starts from the point your cursor rests on and works down. Joy of joys, now you can make changes viewing at least a part of the whole. Nope. In the expanded format no editing is possible. Your frustration reappears. You decide to do some more editing. A line space between a paragraph and a sub-paragraph you decide would have eye appeal. Fifteen minutes later you are still trying to figure out how to insert a line between two para's if you don't do it on the original typing. Similarly, if you have added a line space by mistake, more time is required to conjure up a way of eliminating it. No key action will do it, that you can discover. Finally, you pull down a menu and put the cursor on the line space and click delete. So easy! But wouldn't a bit of tutorial on editing the outline have saved you that frustration and negative attitude that was beginning to emerge about the program.

Functional?

After the pleasure that occurs when your first outline, with some "beef" put into it appears before you, black on white, one of the questions that begins to nag is, "Does the typing slow down as you add text to one of the sub-paragraphs?" The answer is quite obviously yes. After four lines of typing into a single item, the type begins to turn oily, and catch up after you have stopped typing, slipping jerkily onto the page. By the thirteenth line, the words come on as though sucked up out of deep mud. The same is true for the delete process, once you try a long line. What you realize then, is that this program is for outlining only, and not for expanding it with text, for all text in a single paragraph is seen as one long continuous heading. After 13 lines the program gives up and flashes, "Line too Long".

All too unwillingly, you being to accept the fact that this program may not be built for expanding your headings into paragraphs, and building a series of monographs or small articles. Your hope then is that somehow you will be able to combine HIPPO CONCEPT with Hippo Word and loading your outline into the latter, expand it at will, taking it back into CONCEPT for changing its structure. But evidence of that awaits release of Hippo Word this summer.

The next frustrating encounter that hit my patience bone dead center, came when, after extensive familiarization commands and documentation, I tried to move a lower level sub-paragraph up under a different higher level paragraph than it had been attached to, e.g. F.2 to E.2. There I sat, plucking key combo after combo. Sure, I could move it up a level but not over, so to speak. I could

make it part of the same level as para E, and thus no longer a sub para, but how to move it over as a sub para of E?

Twenty minutes later, I had it, (1) You switched the target para, paragraph E, to the end of your outline, then you shift the subpara up to paragraph status and move it also to the end the outline. Using Shift and the up arrow key, you can then move this network (or para and its subparas) up to where you want it in the outline. Then, finally, you moved the cursor to the subpara you wanted subordinate to para E, and with the Shift and right arrow key moved it into position.

It was thus that I began to generate some empathy for the author of the program and also the author of the documentation as I went thru this exercise and then tried to describe it to you the reader. A tutorial which would have led you thru the process of shifting sub paras up under other paras than their original was indicated. For once this is understood, it is quite easy, an x- step two-key process, depending on how many lines it is to be shifted up or down. But the perturbation you go thru learning the answer, lessens your joy of using CONCEPT.

To outline properly, you ought to be able to search thru your outline and mark those items you wish to collect and save under a newly integrated structure. This unfortunately is not possible with Hippo CONCEPT. At best, you can systematically save individual para's under separate names and then load them via network loading back into a self-contained unit. But the complexity of the process, suggests pencil and paper are not yet outmoded.

Final judgement should probably await release of Hippo Word and we have an opportunity to see how the two programs combine. But certainly the next update of Hippo CONCEPT should contain updated documentation with a vastly expanded tutorial. As cited, the documentation as it now stands is highly precise, but so concise that you find yourself treating sentences as chess problems, trying to verify their accuracy (and all were) and devine their intent. We would only issue a plea to Hippo Software to update the program, and soon. We need you Hippo CONCEPT!

Is Something Wrong????

If you do not receive a copy of CURRENT NOTES when you expect it or if you have ordered library disks or back issues and have not received them in a reasonable amount of time, do feel free to call or write and inquire. Mistakes are made on occassion and we will be more than happy to correct any problems when we hear about them. If you are receiving CURRENT NOTES as a club member and there is any problem with your address or subscription expiration date, be sure to contact your club representative since this information is provided to CURRENT NOTES by each club.

PRINTMASTER

Reviewed by Milt Creighton

PrintMaster by Unison World (\$41.5) is a graphics program for the 520 ST which is designed to allow you to create your own signs, greeting cards, stationery, calendars, and banners. Those of you who have had previous experience on other computers with The Print Shop by Broderbund Software already know what I mean. For those of you who haven't, don't feel as if you've been left out. PrintMaster has all the features of the others--and more.

PrintMaster was quite obviously ported over from the IBM PC. In fact, the manual you get only has instructions for booting the IBM version; the 520 ST boot instructions and errata are provided on a separate insert. The company is preparing an all-purpose manual but it wasn't ready in the early versions of the program. Unison World does promise to send a copy of the new manual to registered owners (so fill out your registration cards) as soon as it is ready. It doesn't really matter though, the manual provided is nice, heavy paper stock, attractively printed, and easy to read. It will look very nice on your bookshelf where it will sit while you play with the program. Like The Print Shop, PrintMaster is so user-friendly you won't want or need to take much time reading instructions. The best part of this program is in the experience.

At a time when it seems so many software companies are rushing to port over their best sellers to the 520 ST, many of them fail to make use of the GEM desktop or the mouse. As a result, we users are left to flounder with the same tired old function keys and control key combinations of someone else's system. True, we get a program proven in the marketplace and usually free of major bugs, but it's often not enough to compensate for the inconvenience we have to accept. Not PrintMaster, though. It was ported over, true enough, but Unison World at least had the grace to include the use of the mouse for function selection. It makes all the difference for someone who is a convert from the old school. The menu selections are sometimes too close together for broad movements but judicious use of the mouse will get you what you want. For those of you just dying to go back to the horse and buggy days, the arrow keys work too. No GEM desktop is provided but you don't really miss it because of the nice screen design of the program.

The clip art in PrintMaster is generally a cut above what I've seen in similar graphic programs but it still doesn't match the capabilities of the 520 ST in high resolution. But then neither do most printers. I liked the quality of the pictures, many of them were quite detailed and much more than simple outline drawings. The only complaint I have at all about the

art is that the picture of the computer in the graphics library is the very image of an IBM PC instead of the more advanced Atari 520 ST! (Fortunately you can exorcise this beastie with the graphic editor). The fonts which were included in the package were more than adequate for most needs (they each have three styles including an outline and 3D version) but I thought the borders were a little on the skimpy side. I suspect that will be corrected in future additions to this program.

PrintMaster has a graphic editor more complete than most. You can edit any one of the more than 100 pieces of predesigned art, flip it horizontally, or invert it black for white. The size of the canvass is small and you may have problems using the mouse here but the editor's commands are displayed along the righthand side and the x-y position of the cursor is displayed underneath so there's no need to flip back and forth between screens. Unfortunately, Printmaster won't accept graphics done in Degas or Neochrome format so you are limited to the pieces of art included on the disk or what is available in the optional Artgallery I (\$29.95). The graphics included in PrintMaster aren't really clip art in the true sense of the word because they can only be put in certain specified places on the greeting cards and banners. That can be annoying if you can't fit your message around the preset placement options. It is here that the lack of graphic and layout flexibility of PrintMaster cannot rival the versatility of programs like Typesetter ST or Degas. The preset format of the PrintMaster options are sometimes restricting. Still, there seem to be enough options available for most situations and the practical limit will usually be defined by your own imagination anyway.

One of the more pleasing additions to PrintMaster is the calendar option. In this option you can design your own personal monthly or weekly calendar with special days carrying your own message. Each page of the calendar can have its own graphics which highlight the season or some commemorative event. Great for refrigerator doors or family bulletin boards! There are also options which allow you to design and print your own letterhead stationery, make signs, or create banners about as long as your patience. In addition, PrintMaster has a preview feature which allows you to actually see how the finished product will look before you print.

One of the problems with a program like PrintMaster is that it is completely useless unless you have a printer which is supported by the software. Playing with the editor and waiting for PrintMaster to go through its layout process can be more than a little frustrating if the program bombs when it comes time to print. In addition, close usually isn't good enough. An "Epson compatible" printer, for example, had better be very compatible or you'll find your greeting card slipping over the perforations of your fanfold paper. Make sure before you

(Continued on page 32)

TOM HUDSON's CAD-3D: BETA TEST REPORT

by Jack P. Durre'

I personally consider Tom Hudson, author of DEGAS (\$39.95, Batteries Included), one of the premier Atari programmers, and was delighted to be offered a chance to beta-test Tom's ambitious new CAD-3D program for the ST.

CAD is an acronym for Computer-Assisted Design, and it is to the drawing professions what a word processor is to the writing professions, or what a spreadsheet is to professional number crunchers.

My main computer interest has long been CAD. Those of you who know me solely as an Atari users group officer with DAUG and W.U.N. may not be aware that I earn my livelihood as a registered Architect. I've been in practice since 1971 and have my own office in Miami, Florida.

I was fortunate enough to have gotten a sneak peek at CAD-3D back in November at the COMDEX show, when Tom had barely begun working on it. Much progress has been made since. However, certain features were not yet implemented, and it should be noted that the following is a report of my experience as a beta tester -- not a review of a finished product.

At this writing, Tom is in the final stages of clean-up and CAD-3D is scheduled to be available from Antic Magazine's Catalog by the time you read this.

CAD-3D takes full advantage of the GEM system of drop-down menus, windows, sliders, etc. The main screen is grouped into four separate windows -- Camera, Top, Right and Front. Eight different menu titles appear across the top of the screen, including Desk, File, Modes, Views, Light, Generate, Merge and Objects. As you work with the program, you will soon discover how intuitively each of these things seem to work.

PERSPECTIVE

CAD-3D can create a perspective view, as it would actually be seen by an observer, utilizing orthographic projections. Huh? Sorry, suffice to say that by using the top (plan) and side (elevation) views, as might normally be drawn by a designer, it is possible to create a "real" picture of a view that one might actually expect to see.

CAD-3D is capable of doing this in several different forms -- which operate at different speeds. In Wireframe mode, each edge of an object is represented by a line (wire). Lines which are behind other surfaces and would not normally be seen can be removed, with the hidden-line option.

Most importantly, CAD-3D can draw solid surfaces that actually reflect light varyingly, depending on their position relative to a light source, or sources. Outline, another mode, allows for a solid form including surface contour lines that lend more understandable shape to surfaces.

The built-in lighting option allows for placement of as many as three different light sources plus ambient lighting. Each light source can be assigned an intensity value ranging from 0 to 7.

CAD-3D can be operated from the keyboard. However, I found it preferable to use the mouse, clicking on individual windows to select them for manipulation. All four windows can be active simultaneously, but this does slow operations somewhat.

It is possible to select which of two views, such as top or bottom, will be seen in a particular window. But as you grow more experienced with the program, fewer windows seem necessary. It is also possible to fill the entire screen with any one of the windows.

INTUITION

Manipulating these windows seems intuitive, at least for the experienced ST user. For example, the sliders in the side and top windows are used for either of two purposes. In Scaling mode, they are used to increase or decrease the size percentage of object(s) within a particular window. Clicking on the upper-left "button" changes these sliders into rotation controls.

In the Scaling mode, a click in the slider-bar area between the button and either end increases or decreases the scale (horizontal or vertical size), by 10% percent per click. Clicking the arrow at either end of the slider-bar makes the changes at only one percent per click.

You can, of course, drag the slider itself and make size changes up to 50 percent at a time, or rotational changes at up to 180 degrees per use. This same coarse/fine control applies to the rotation option, with either one or 10 degrees changed with each click of the mouse button.

In the camera window, the horizontal slider affects the zoom (magnification) while the vertical slider alters the perspective, but the same rotational control is still used.

I found it quite simple to scale (size) an object up or down, in all three axes. However, without any guide to the relative proportions of the views, the program loses some of its practicality. Tom has indicated that he will attempt to include some means to measure the proportions, allowing the designer to effectively measure the three dimensions of a shape and convert those proportions into real-world sizes.

Obviously, one of the more important facets of a CAD program is its Drawing (generate) mode. CAD-3D uses two different processes -- Spin and Extrude -- to create the basic shapes needed by an artist or designer. A grid with optional "snap" is also available.

PRIMITIVES

Provided as primitives are three different sizes of spheres (each having a different degree of fineness), a torus and a cube. (I would suggest at least one more, a wedge.) Using these various objects challenges your skills when first learning the program. For example, you could select the cube primitive and stretch it horizontally while smashing it vertically, to create a flat, thin, groundplane surface.

This is somewhat like squeezing and smashing modeling clay, but with a great deal more control. Having created a base surface, you can now Extrude an irregular object (a pentagonal prism, for example) and place it upon the base. The Extrude window is divided into four quadrants, with three menu choices across the top of the screen -- including "rubberband."

The Spin option creates rounded shapes composed of curves, spheres, arcs and the like. Using either a "connect" option or the rubberband, a sectional view of an object is created on one side of the vertical axis and the computer generates the opposite half.

Most design objects are composed of multiple primitive shapes. You can create each portion individually, arrange them into the proper form, and then join them into one single object. It is also possible to create new shapes by subtracting one shape from another. This Generate section of CAD-3D is likely to both frustrate and fascinate users.

Suppose you wanted a rectangular shape with a sloped upper surface. One way to create this would be to extrude a triangular object and revolve it by 90 degrees before placing it on a cube shape.

I've puzzled over pyramids (a cone, actually, with only four vertices), cubes with holes through them (still working on that one) and other complex shapes. Still, CAD-3D offers a way to remove the burdens traditionally associated with drawing realistic pictures while presenting the operator with new challenges.

Obviously, you could add elements to a drawing until a final result is achieved. Once a group of individual objects is complete, you could relocate the entire group within various windows by electing to "drag all", or you could drag one object at a time. These options can be done in one or two dimensions at a time.

SUPER VIEW

The Super View selection creates a full-screen view of the object(s). With a color monitor you can choose two colors in seven shades, or one color in fourteen shades. Monochrome systems have an option of black on white, or white on black. With CAD-3D's Animate feature, you can select different Super Views of an object to create a series of "slides." Imagine an Architect presenting to the client a series of views that seem to approach the building, enter it and move around within.

Also, CAD-3D can save pictures to other ST graphics formats for further enhancement. You can select DEGAS, NEO or the Antic Catalog C.O.L.R. Editor.

A major criteria for professionals working with CAD programs is their speed. At times it seems to tax the calculating abilities of the 68000 microprocessor, with re-draw times sometimes running 10-15 seconds for a minimal change. Of course, as far as the computer is concerned, extensive changes require the same amount of drawing as simple tasks.

CAD-3D works with the 520ST or 1040ST. Obviously, additional memory allows more complex objects to be stored. Presently, the total number of separate objects CAD-3D can handle is 20, but this can be increased by using the Joint and Merge options.

This preview may seem rather lengthy to the non-user. In reality it is pitifully brief. Tom Hudson's CAD-3D is a complex and serious tool. It has even more features, which I have only hinted at here. For those of us needing a professional drawing program, it is wonderful! For anyone else, CAD-3D provides an easy way to accurately draw objects more complex than ever seemed possible!

Fully utilizing CAD-3D requires the ability to think in three-dimensional space, and it could be frustrating for those unable to do so. There is, however, probably no better way to learn three-dimensional thinking than by using CAD-3D. This program should be in the office of every Architect, Engineer, Interior Designer, Contractor and Commercial Artist, to mention only a few!

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THE PANASONIC KX-P1091 PRINTER

Reviewed by Jim Parks

This article is directed toward the Panasonic KX-P1091 printer but contains comments relevant to other printers as well. As this article should be of interest to a first time printer buyer, some material may seem over-simplified to more experienced users.

BACKGROUND

Recently, home dot-matrix printers have undergone a substantial transformation. A dot matrix printer (for the newly initiated) traditionally uses a set of nine wires (although newer models use up to twenty-four) stacked vertically in the print head. These wires are then fired against a ribbon in a pre-set pattern to form characters. This differs from a Fully Formed Character (FFC) printer which uses a striking surface that already has the impressions of all available characters and strikes the ribbon with the appropriate character each time, similar to a typewriter.

The earlier home dot matrix printers had the distinctive "draft" dot pattern which was easily recognized and not very suitable for formal letters or other printing needs. They were extremely fast, however, printing 80 to 180 characters per second (CPS) and could do graphics. FFC printers create type equal to a good typewriter but were generally much more expensive, considerably slower (10 CPS average) and could only type characters, not graphics. The most popular dot-matrix printer manufacturer is easily Epson, who has sold more dot-matrix printers than all other printer manufacturers combined. Therefore, Epson became the de-facto standard for printer control codes (more on this later).

Within the last two years, a new innovation has struck the industry, the Near Letter Quality (NLQ) printer. This is a dot-matrix printer which produces a greatly superior style of print, usually by making multiple passes of the same type line with a slight alteration in the print position. The resulting print is similar (but not equal) to a FFC printer. Note that NLQ is not the same as double-strike or emphasized modes that the Panasonic and other printers have. Emphasized print is where a printer strikes the identical dots twice, thus making them darker. Double strike makes two passes of the print head but moves the paper slightly, thus filling the gaps between dots. NLQ also makes two passes but uses a different character font from the standard draft mode. The results vary from printer to printer but in all cases, NLQ is superior to the standard mode of the same printer.

THE PANASONIC PRINTERS

Panasonic released a line of dot-matrix printers in 1984 which offered significantly more in value for the price than popular printers of the day. These were designated as the KX-P1090, 1091, 1092 and 1093. This article will deal specifically with the KX-P1091 but differences between the other models will also be noted. At the time of its release, the 1091 represented such a good bargain that at least one Washington area store was using them in a 'bait and switch' tactic. That is, customers looking at printers would be shown the standard selections, such as Epson and Okidata, at very competitive prices but would then be steered to the newest development, the Panasonic. The catch was that the Panasonic at this store had a greatly inflated price compared to other Washington dealers but because the line was not yet commonly known and the printer did represent a good bargain over existing models, the customer often jumped at it (a recent visit to the same store revealed a variation of this tactic).

The 1091 has a nine wire head, 1K internal memory, built in tractor and friction feed, switch selectable standard, NLQ or proportional print modes, and Epson compatibility. The default type is Pica, which prints 10 characters per inch (CPI). However, this can be changed to Elite (12 CPI), condensed (17 CPI), proportional (variable CPI), Pica elongated (5 CPI), Elite elongated (6 CPI), condensed elongated (8.5 CPI), italics (slanted), emphasized and double strike by using printer control commands (most word processing software, such as Atariwriter, have some method to send commands from the computer to the printer). By making changes in the DIP switches, the printer can also be set to print the IBM matrix character set, IBM Graphics Set G1 & G2 or one of eight international character sets.

The switch to change from friction to tractor feed is readily accessible on the top of the machine and clearly marked (unlike most of Epson's models). I have never had any problems with either method of paper loading. However, the tractor feeder is AFTER the paper tear bar, which frequently results in an wasted sheet to load the tractor feeder. I keep a separate box for these sheets and use with friction feed. An out-of-paper indicator stops a print and activates a buzzer when paper runs out. Unfortunately, the sensor is at the entrance of the paper feed rather than the exit, so that there are still several lines of paper left in the printer. This is annoying when there are only one or two lines left to print and four or five lines left on the paper. The only solutions are to insert a new piece of paper (which will autofeed in) or hold something over the sensor (such as a card or envelope) so that it will continue printing on the same sheet. A more permanent solution is to put a piece of tape over the sensor, thus disabling the sensor completely but then

a legitimate out-of-paper condition is not detected. Because this is an optical sensor, transparencies and transparent paper also cause a problem but I have never needed these. If there is still data to be printed after the paper change, a different alarm will sound to remind the user to finish the print. Although I find these alarms annoying, particularly when they defeat my intent, they are better designed over-all than the Epson alarms.

The printer also comes with a paper separator and top cover. The paper separator (to keep incoming and outgoing paper from rubbing on each other) is particularly useful since I have the printer on a stand with incoming paper underneath the printer and finished paper stacking behind the printer. This arrangement works so well that I have no qualms about leaving multi-page printouts totally unattended. The top cover is designed to reduce noise and keep debris from falling into the printer. Unfortunately, there is no hinge to allow this cover to pivot in and out of the way as needed. Since it is necessary to remove the cover to reload paper or switch between friction and tractor paper, the cover generally remains off at all times (I wrapped mine in foam and put away for safe keeping after the first month). This is a poor (but very common) design which could easily have been rectified.

The Panasonic 1090 printer is identical to the 1091 but without an NLQ mode. The 1092 has several added features. It has an 8K internal memory rather than 1K (each K is approximately 1/3 of an average page). It also has the tractor drive underneath the roller and, therefore, does not require an extra sheet of paper to load the tractor guides. It also allows setting the form length to different sizes, which is useful for printing checks, invoices or other odd sized forms. The 1093 is essentially the same as the 1092 but with a wider carriage of 132 characters rather than 80, which is useful for printing spreadsheets, database reports, etc. but unnecessary for word processing. All printers can be set for a narrower paper width than the maximum. Panasonic has recently released a 1080 model which is similar to the 1091 but is slower (100 CPMs), uses a slightly redesigned print head, has a switch setting for condensed rather than proportional print and is slightly less expensive.

EPSON COMPATIBILITY

One of the big selling points of the Panasonic is the "100% compatability" with Epson control codes. In actuality, there is no true Epson standard. Even Epson printers are not compatible with other Epson printers because Epson made minor changes between models, and enhancements within models such as Grafrax and Grafrax Plus. The Atariwriter printer driver diskette sold through the (now defunct) APX had no less than eight Epson printer drivers on it, one for each type and style that Epson put out.

According to the Panasonic Customer Support personnel, the KX-P1090 was designed around the Epson RX-80 printer, the 1091 around the MX-80 and the 1092 around the FX-80. With the inclusion of printer driver construction kits such as in Letter Perfect and Paper Clip, Epson compatability is not as essential as it once was for word processing but is still an added benefit (custom printer drivers for Atariwriter can be obtained from Issue #32 of Analog or from Gary Furr, P. O. Box 1073, Mountain View, CA 94042-1073 - send \$10 and printer type). I have found the Panasonic to work perfectly with all Epson type codes with the possible exception of superscript/subscripts. I have had no problems with any graphics software designed to work with Epson printers

NEAR LETTER QUALITY

As mentioned before, the NLQ, standard and proportional modes on the 1091 are accessible by moving a switch on the top of the machine. This is a far superior approach than requiring embedded software commands since many applications such as spreadsheets, databases or simple text files (such as disk documentation) have no way to transmit print commands. The quality of type is quite good, although I have seen better at higher prices. A close look will reveal that it was created by a dot matrix printer (and I wouldn't use it for my resumes if I had a choice) but it is satisfactory for most needs.

Like most standard nine pin NLQ printers, the 1091 requires a second pass of the print head to achieve NLQ, thus substantially reducing the speed. It should be realized that NLQ actually forms a different set of characters rather than merely filling in the gaps between the dots in draft mode. Characters have enhancements such as "tails" on the sides and/or bottom of characters to make them more elegant, e.g., a "T" will have small lines hanging down from both sides of the upper bar and a small line at the bottom. This is the primary difference between double strike vs. NLQ but because the NLQ character set was designed for a two pass print, each character is superior to its equivalent in double pass. Readers desiring a graphic description of this, as well as a comparison of different type styles (albeit in compressed mode) should refer to page 23 of the February, 1986 issue of Current Notes.

An important limitation of the NLQ feature of the 1091 is that it ONLY works in Pica pitch. It does not work in elite, compressed or proportional pitches, nor will it do superscripts/subscripts. It will do Pica standard, Pica italics and Pica double width, however. Some of the newer printers available will do several or all fonts in NLQ but, again, the initial cost of these printers is higher.

SPEED

The rated printing speed of the 1091 is 120 CPS in draft mode and 22 CPS in NLQ. However, the rated speed of a printer is a misleading figure. Most printer manufacturers rate their printer on the actual speed that the print head can produce characters. While this seems like a logical standard, it fails to account for the time taken to advance the paper up at the end of each line or the print head to re-align itself. In mono-directional printers, which only print from left to right, it also fails to measure the time the print head takes to return to the original starting position to begin printing (the 1091 is a bi-directional printer; after printing a normal line from left to right, the next line is printed from right to left). These factors are significant when talking in terms of 120 or 180 CPS. The normal length of one line is 80 characters. Therefore, a printer must perform three carriage returns every two seconds at 120 CPS, and two carriage returns every second at 180 CPS. The result is marginally diminishing returns with every increase in speed.

I conducted some quick benchmark tests by consistently printing out 7,200 characters. This number was chosen since it was easy to program, is readily divisible by all numbers I was interested in and gave a natural combination of one minute at 120 CPS for rapid conversions. According to my tests, the actual speed in draft mode of the 1091, including line feeds, was approximately 87 CPS. Based on these calculations, it takes approximately 0.27 seconds to perform a line feed with the 1091. Although this seems fairly fast, it translates to a loss of 33 CPS from the rated figure. With a 180 CPS printer, the actual loss will be greater since the line feed time remains a constant figure. This is because the printer must perform more line feeds per second and each each line feed is equivalent to a larger number of characters printed per second. Extrapolating my figures to a 180 CPS printer, the actual speed of a 180 CPS printer, including line feeds, should equate to approximately 114 CPS, a loss of 66 CPS from the rated figure.

With NLQ, additional complications arise. My test times indicate an actual printing time, including line feeds, of 16 CPS. Although NLQ is printed bi-directionally, the second pass of each print line is printed mono-directionally. That is, when the first line is printed, the first pass starts at the left and prints to the right. Then the print head returns back to the left side before printing the second pass from left to right. On the second line, the print head is already on the right and begins from right to left, finishes at the left side, and returns to the right side to begin the second pass. There is a slight pause between the first and second passes to allow the paper movement which fills in the gap between dots. I don't know how 22 CPS

was calculated as the rated figure but more time was involved with the timed speed than could be accounted for by normal line feeds.

If the above discussion sounds like a derogatory attack on the rating methods of Panasonic, such is not my intent. It is my understanding that almost all manufacturers use roughly the same standard of measure so that the above discussion applies to manyrated printer speeds, not just Panasonic. My purpose is merely to show that rated speeds have qualifications similar to the rated miles-per-gallon figures on automobiles. The corollaries are that simply dividing a long manuscript by the characters per second will not give an accurate printing time, and that extra dollars for increased speed may not be as advantageous as the ratings indicate.

MISCELLANEOUS

The documentation for the 1091 is excellent. It is 45 pages long and gives detailed instructions on all software commands, including the decimal, hexadecimal and keystroke values, and the actual BASIC commands used to set an option. An example of the results of each command is actually printed in the book, along with comments on what it will and will not do. It is also cross-referenced very well, so that you don't get caught by a warning printed 20 pages before or after the page you're reading. For example, the paragraph on how to set the Elite pitch is as follows:

ELITE PITCH
Sets printing to 12 characters per inch (96 characters per line).

NAME: ESC+M
CODE: 27,77 DEC 1B,4D HEX
INPUT FORMAT: LPRINT CHR\$(27)+"M"

EXAMPLE: 10 REM ELITE PITCH
20 LPRINT "-----PICA-----"
30 LPRINT CHR\$(27)+"M";
40 LPRINT "-----ELITE-----"
50 END

-----PICA-----
-----ELITE-----

COMMENTS:

The elite and compressed modes cannot be used together. In the elite pitch, the compressed print setting will be ignored. If the elite pitch designation is made after compressed printing has been set, compressed printing is released and the elite pitch remains in effect. The near letter quality characters cannot be printed in the elite pitch. When the print mode selector is not at "Std. Pgm." position, this command is not operational.

Unlike some very popular printer manufacturers, Panasonic has not taken the attitude that if you don't know how to use their printer, you shouldn't be touching it

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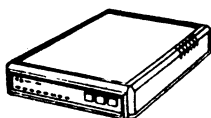
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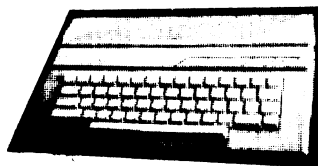
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P1091 (Continued from page 40)

anyway. Everything is clearly labeled, readily accessible and logically thought out. I am still somewhat amazed at printers just arriving in the marketplace which seem to make an arcane science out of their operation. Given the right interface, I think anyone can be printing on a 1091 within 10 minutes of unpacking, since the only setting required is to enable the auto line-feed (Atari differs from most popular computers by not sending a line feed with each carriage return, so that the printer DIP switch controlling auto line feed must be enabled).

I personally use an MPP 1150 parallel printer interface, now sold by Supra Corporation. In addition, I obtained a 2K chip from MPP which plugs directly into the MPP 1150 (each K equals approximately 1/3 of an average page). However, this chip is occasionally more trouble than it's worth since I have to unplug the interface or turn the printer off at least three times to clear the 2K being downloaded from the interface to cancel a print. The 1150 contains an additional Atari serial plug, which the Microprint and several other interfaces don't have, which prevents constant rearranging of equipment to maintain a daisy chain, particularly with the old 410 cassette drive.

Although I have never tried to create and download my own custom fonts, the 1091 does support this to some degree. The limitation is that with a 1K internal memory, only 40 characters can be downloaded. This means downloading an upper/lower case alphabet is out unless you are willing to make some unreasonable sacrifices.

A major advantage of the 1091 is the life of the print ribbon. It is an easily installed cassette with a rated life span of 3 million characters. Inside the cassette is a large foam wheel saturated with ink which constantly keeps the ribbon well inked. When the type begins to look faint, one can push a pin through a special hole which increases the pressure on the wheel, thus adding more ink. This contrasts sharply with some other printers which only allow one use of the ribbon before replacement. My first ribbon lasted almost a year and was still quite legible when replaced but I needed the best type possible for a formal research paper. Although I have not tried it, I would imagine the ink wheel could be re-inked with stamp pad ink, so that the only limitation would be the life of the ribbon itself. The cassette snaps apart and together very easily.

CONCLUSIONS

I feel the introduction of near letter quality printers has virtually obsoleted earlier models for home use. The ability to use a printer for more than just graphics and draft-mode prints is a major advantage and well worth the minor increase in cost. Although I have noted what I consider to be flaws to the 1091, they are generally minor or are reflective of the industry. I

personally consider the Panasonic 1091 to still be one of the best printers on the market in its price range and a bargain for the value. The store personnel I have talked to regard the Panasonic as a workhorse with a reputation for reliability and ruggedness. Such could not be said for at least one of the Panasonic's closest competitors in its price range. I recently visited a store in order to be impressed with the newest advances at cheaper prices than what I had (older computer owners will know what I mean). I was surprised to learn that, although newer and better printers were available, particularly if additional NLQ modes were desired, these newer printers carried an equivalently higher price tag. I had my printer for almost a year before I learned that it wouldn't do NLQ type in Elite, condensed or proportional fonts since I never had a need for such, but other users may have different requirements. Advantages such as a wider carriage, more internal memory, faster speeds and other enhancements are all nice but all come with their own price. In some cases, the money would be better spent elsewhere, such as for a print spooler. I recommend the Panasonic line to anyone who is considering a low cost printer with both draft and NLQ capabilities.



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*** WAACE CLUB NEWS ***

[Note: Please DO NOT CALL any club officers after 10:00 pm. Unless otherwise indicated, club dues are \$15/year/family. Club memberships include a subscription to this newsletter. Club officers: remember, any changes to this information should be submitted to the editor by the 12th of each month.]

----- A.U.R.A. -----

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MEETINGS are usually held on the 1st Thursday of every month (but see below), 7:00 pm (Library Activities), 7:30-9:00 pm (Program) in the Temple Israel Social Hall. Temple Israel is located in Silver Spring, at 420 E. University Blvd, between Colesville Rd (Route 29) and Piney Branch Rd (Route 320).

JUNE MEETING will be 1st Thursday (June 5) but the JULY MEETING will be on the 2nd Thursday (July 10) to avoid a conflict with the July 4th weekend.

New members may join at any meeting or by mailing a \$15 check, payable to AURA, to Treasurer, AURA, PO Box 7761, Silver Spring, MD 20907.

----- C.P.M. -----

Capital Pro Micro-Users

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CPM Meetings: Capital Pro Micro-Users meetings are held at the Public Library in Oxon Hill, Maryland. The Library is located near the Woodrow Wilson Bridge just off the Washington beltway. From Virginia via the Woodrow Wilson Bridge, stay on the beltway to Maryland exit #4 West (St. Barnabas Road). St. Barnabas Road merges with Oxon Hill Rd. (right turn at end of exit ramp); proceed 1/4 mile and Library will be on your left. The meetings are held each month in the MEETING ROOM. The Library telephone number is 301-839-2400.

June Meeting

The next meeting is scheduled for June 24, 1986 at 6:30 p.m. CPM meetings are now held in larger quarters, the MEETING ROOM within the library.

At the June meeting, we plan to demonstrate the Atari ST 1040. The computer is a single unit. The disk drive and power supply all in a single cabinet

which means you will only have to carry your keyboard and monitor around if you want portability. Compare this to your 8 bit machine with all its components!

The H&D program which is a DB II clone will be used to show the powerful versatility of this machine.

Library Disks

The CPM library currently consists of cp/m 2.2 disks and all ANALOG disks from issues #20 thru #42. Library and ANALOG disks are available for purchase at monthly meetings. The cost of each disk is \$3.00 plus \$1.50 shipping for each two (2) disks or fraction thereof ordered by mail. Please allow two weeks for processing mail orders. Mail orders should be addressed to: Mr. Joe Barbano, Disk Librarian, 3600 Earlstown Court, Mitchellville, MD. 20716. Make checks for library disks payable to: Capital Pro Micro-users.

Membership Dues

Member dues for 1986 and the subscription fee (\$12) to CURRENT NOTES are past due. Deduct \$1.00 for every month you are late in subscribing to CURRENT NOTES. Please ease the Treasurer's time requirements by submitting your payments ASAP. Remember, it is a voluntary position and that we have a new Treasurer. Mail your \$15 to: Frank Jones, 416 Hillsboro Drive, Silver Spring, Md. 20902.

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Meetings are held on the fourth Tuesday of each month from 7:00 pm to 9:30 pm in Walkersville High School, MD Route 194, one mile north of MD Route 26 (Liberty Road).

Membership Dues are \$20/year per family and include a subscription to CURRENT NOTES. Join at the meeting or send your check, payable to FACE, to Buddy Smallwood, PO Box 300, Keedysville, MD 21756.

April Minutes

At the April meeting we were presented with a demonstration of "The Learning Phone", the Atari tie-in to the PLATO system. To preclude the usual communications difficulties when working on a demo for a live audience, Buddy Smallwood had the foresight to videotape the whole session, and then present the highlights as a tutorial. A really excellent presentation. Then, since we were dealing with telecommunications anyway, Tom Jackson presented a videotape of some other modem programs, including AMODEM 7 and 1030 EXPRESS. These two presentations were so interesting that no time was left for our usual demonstration of a game. We hope to find time for "SPY VS SPY" next month.

----- N.C.A.U.G. -----

National Capital Atari Users' Group

President..... Frank Huband..... 703-527-4770
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 Membership..... Gerald Whitmore.. 301-459-6164
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Meetings are held on the third Tuesday of each month from 5:30 pm to 8:30 pm in room 543 at the National Science Foundation offices, 1800 G Street, NW, Washington, DC. Closest subway stop is Farragut West on the Blue and Orange lines. Building, on corner of 18th & G, identified by sign for Madison National Bank on the corner. Front entrance is on west side of 18th between F and G.

New members may join at the meeting or send \$15 check, payable to NCAUG, to Allen Lerman, 14905 Waterway Drive, Rockville, MD 20853.

----- NOVATARI -----

Northern Virginia Atari Users Group

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Special Interest Groups

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 ST SIG..... Joe Kuffner..... 703-759-2507
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 *** Please do not call after 10 PM EDT ***

JUNE 8 - The NOVATARI main meeting is held at the Washington Gas Light Building, 6801 Industrial Road, Springfield, VA on the 2nd Sunday of the month. Take 495 to East on Braddock (620) to South on Backlick (617). Left on Industrial Road (by a light with a Texaco station on the corner). Washington Gas Light is the second building on the right. The Telecom SIG meets from 5:30-6:00 and the ST SIG meets from 6:00-7:00 in the small auditorium. The XL/XE Beginners SIG meets from 5:30-6:30 in the large auditorium followed by an demos, open discussions, and guest speakers if any.

NOVATARI Chapters/SIGs

JUNE 5 - MT VERNON / HYBLA VALLEY meets the first Thursday of each month at 7:30. Contact Ron Peters at (780-0963).

JUNE 5 - STERLING meets in the Sterling Community Center Annex from 7:30 - 10:00 on the first Thursday of the month. Contact Palmer Pyle (437-3883).

JUNE 15 - BURKE meets at the Oaks Community Center from 7:30 - 9:30 on the third Sunday of each month. Contact Ray Cwalina (250-3856).

JUNE 18 - VIENNA meets in room 32 at the Vienna Elementary School from 7:30 - 9:30 on the third Wednesday of the month. Contact Dave Heagy (281-9226).

JUNE 22 - ST SIG (Special Interest Group) meets at Washington Gas Light from 6:30-9:30 on the fourth Sunday of the month. Contact Joe Kuffner (759-2507).

JUNE 25 - GREENBRIAR meets at 4112 Majestic Lane, Greenbriar VA from 7:30 - 9:30 on the fourth Wednesday of each month. Contact Jim Stevenson (378-4093).

JUNE 25 - RESTON meets in the Reston Library from 7:00 - 9:00 on the last Wednesday of each month. Contact Bob Zimmon (476-5924).

New members may join at the main meeting, any chapter meeting or by sending \$15, payable to NOVATARI, to Earl Lilley, 821 Ninovan Road SE, Vienna, VA 22180.

President's Report

We will be having a speaker from MicroProse at the June 8th NOVATARI meeting (thanks go to Evan Brooks). Dave Meyer has been in touch with Broderbund and hopes to have someone for the July 13th meeting.

I made an error in the the dues for the new BBS - temporarily using the name of "ARMUDIC ST". The annual dues for NOVATARI members are \$10 and the dues for other WAACE members are \$15. Also, as the BBS is a WAACE BBS one MUST either subscribe to CURRENT NOTES or belong to one of the seven affiliated user groups. (By the way the board is running on FOREM ST). To join the BBS send a check for the appropriate amount made out to "NOVATARI" to: Ted Bell, 9705 Shipwright Drive, Burke, VA 22015.

I have three other pieces of business. First, a reminder that the main disk library will no longer be available at the chapter meetings. Those people who do not attend the main NOVATARI meeting should mail order the desired disks from Evan Brooks.

Next, we are looking for some people willing to help with the ST SIG. Some examples are: someone to organize and plan each month's meeting and someone to maintain a HOTLIST of people willing to help others with questions on some aspect of using the ST. And finally, on a related theme, I need a volunteer to handle the CURRENT NOTES ads sponsored by NOVATARI. This last job doesn't involve much time, but I am wearing too many hats and would like to give this one away. If you are interested in volunteering, please give me a call.

----- S.M.A.U.G. -----

Southern Maryland Atari Users' Group

President..... Sam Schriner..... 301-843-7916
 Secretary..... Dorothy Leonardi. 301-839-1363
 Treasurer..... Bob Barnett..... 301-934-2617
 Disk Librarian... Jim Sanner..... 301-884-5840

Meetings are held on the second Thursday of each month at 7:30 pm in the John Hanson Middle School in Waldorf, MD. Take MD Route #5, proceed about 1/2 mile East of the intersection of Route 301 and take the first left past the Kinney show store to the school.

New members may join at the meeting or send \$15 check, payable to SMAUG, to Bob Barnett, P.O. Box 612, Waldorf, MD 20601.

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Have you Requested CURRENT NOTES?

CURRENT NOTES is a "requestor" publication. That means that we can mail this out at second-class postage rates provided that the individual club members actually request the publication. (Junk mail at 3rd-class rates is, of course, usually NOT requested!) To prove to the Post Office that you have requested the publication, we must have on file a signed and dated statement representing your request. (By the way, your request is good for three years from the date when you sign it.) The application form below fulfills this requirement. If we have your request on file, it is indicated on your mailing label by an "R" (for Requestor) immediately following your club id number, i.e. NV604R.

----- W.A.C.U.G. -----

Woodbridge Atari Computer Users' Group

President..... Bill Parker..... 703-680-3041
 First VP..... Cecil Alton..... 703-670-4842
 VP-Education.... Bob Gaffney..... 703-590-3433
 VP-Liaison..... Tim Mitchell..... 703-221-7722
 Secretary..... Bill Alger..... 703-455-9565
 Treasurer..... Curt Pieritz..... 703-494-3704
 Librarian..... Arnie Turk..... 703-670-2547
 Past President... Jack Holtzhauser.. 703-670-6475

Meetings are held, usually, on the third Tuesday of each month from 7:00 pm to 10:00 pm in the Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Next meeting: Jun 17. Entering Woodbridge from either North or South on Route #1, proceed to the intersection of Route #1 and Opitz Blvd (adjacent to Woodbridge Lincoln-Mercury). Turn west on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building.

Membership Fee is \$10/year plus \$1 monthly dues which includes a subscription to CURRENT NOTES for members in good standing. Join at the meeting or send check, payable to WACUG, to Bill Alger, 7792 Newington Woods Drive, Springfield, VA 22153.

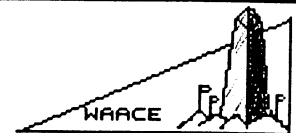
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If you see an "N" (i.e. NV604N), then we do not have your request on file. If you see an "N" by your name, please help us get our records in order by filling out the form below and sending it to Earl Lilley, 821 Ninovan Road, SE, Vienna, VA 22180.

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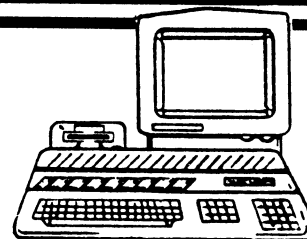
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